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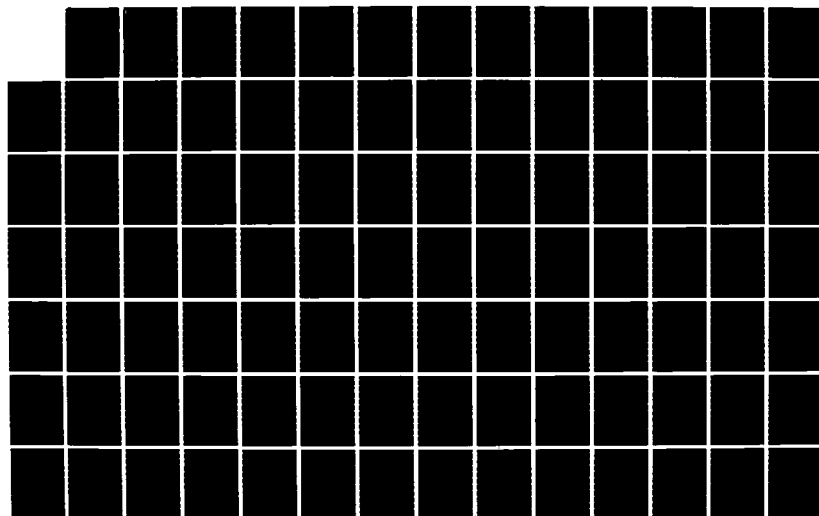
TEXT STANDARD GENERALIZED MARKUP LANGUAGE AUTOMATED  
TECHNICAL ORDER SYSTEM (ATOS)(U) DATALOGICS INC CHICAGO  
IL 23 MAY 86 F42630-85-C-3410

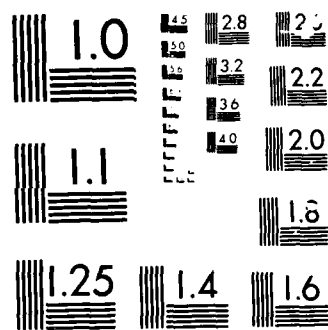
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AD-A168 137

Technical Report No. F42650-85-C3410

TEXT STANDARD GENERALIZED MARKUP LANGUAGE  
AUTOMATED TECHNICAL ORDER SYSTEM (ATOS)

ATOS PROJECT OFFICE  
(00-ALC/MMED-3)  
Hill AFB, Utah 84056

CONTRACT NUMBER F42650-85-C3410

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23 MAY 1986

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AUTOMATED TECHNICAL ORDER SYSTEM (ATOS)**

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DTIC	<input checked="" type="checkbox"/>
Unann	<input type="checkbox"/>
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## SECTION I

### INTRODUCTION

#### 1-1. PURPOSE AND SCOPE.

a. Purpose. A tagging scheme generally conforming to the Standard Generalized Markup Language has been developed to identify the data elements which direct text data formats for publications being processed through automated text processing systems. Subsequently, the tagging scheme was minimized and tailored for processing through the Automated Technical Order System (ATOS).

b. Scope. The markup tags described herein are based on rules outlined in the Information Processing - Text and Office Systems - Standard Generalized markup Language (SGML) Standard - ISO/DIS 8879. (However, when this draft international standard becomes published as the International Standard, the tagging scheme discussed in this report should be reviewed with respect to the International Standard.) In addition, processing of these tags produces technical publications that conform to the format requirements detailed in various military specifications. This report discusses, in detail, each markup tag as well as provides sample input text files and composed output.

c. Background. SGML outlines a metalanguage for use in document structure identification. The standard is not in itself a tagging scheme, but rather a methodology for creating tagging schemes suited to individual applications. It was this standard which guided the creation of a tagging scheme to identify the elements in specific military documents. The tags were chosen on the basis of familiarity to the end user, based upon standard military abbreviations. The main result is that the data is independent of its application. Generic coding, as proposed by ISO/DIS 8879, is a total methodology which: (1) brings concepts through a content analysis to determine their structure; (2) identifies them with an organized tagging scheme; (3) provides a metalanguage for tagging interpretation; and (4) governs data exchange.

#### 1-2. REPORT SUMMARY.

a. General. Based on concepts outlined in ISO/DIS 8879, a standard generalized markup language tagging scheme was designed that meets the requirements of the ATOS publishing application. Processing of these generic tags produces a basic technical manual conforming to MIL-M-38784A, General Requirements for the Preparation of Technical Manuals.

b. Standard Generalized Markup Language Concept. According to concepts discussed in the SGML Standard, a document consists of data elements. The first step in designing a generalized language is to identify the relationships between the significant data elements of a document and to assign each element a mnemonic name or 'generic identifier'. A document type definition is then created using element and attribute declarations of the generic identifiers. Following that, processing information translates which delineate the document formatted output are written. With that in mind, a standard generalized markup language for military publications was developed.

c. Generic Code Tagging Scheme. The ATOS system publication output requirements were evaluated as they relate to the creation/change/revision/supplement process of Air Force Technical Orders (AFTOs). To that end, five AFTO document types were analyzed: basic T.O., including Illustrated Parts Breakdown (IPB); Operational Supplement (OS); Safety Supplement (SS); Time Compliance Technical Order (TCTO); Time Compliance Technical Order Supplement (TCTO Sup). (It is anticipated that additional document types will be identified for future inclusion in this report.) For each document type specific data elements were identified, and tags describing each element were assigned. Tagging was based on the content of the data elements rather than the markup specific output. In other words, the tags that were assigned reflect the structure of the document and do not refer to the formatted output. Therefore, the form of the output can be altered without affecting the integrity of the tagging scheme.

d. Document Tagging Implementation. During the analysis of the five document types, each data element was identified, and a document type definition was written delineating the structure and attributes of each data element. Subsequently, the data elements of a sample text file were delimited by assigned start- and end-tags. In addition, an SGML Declaration, describing the features used, and a concurrent page layout type definition were written. After this process was complete, minimization of the tags began. The result was a set of streamlined tagging schemes for use in the identification of technical manual elements.

e. Technical Report Structure. This report discusses the document type definitions, SGML declaration, and data element tags as well as provides sample input and output. The SGML declaration enables the user to interpret these type definitions to determine system requirements necessary to process the document. The SGML declaration is presented in Section II of this report. The concurrent document type definition, found in Section III, describes a layout structure of

the documents and is used concurrently with each particular document type definition. The remainder of this report basically consists of appendices. Each appendix discusses a particular document type; within each appendix, a document type definition, tag descriptions, sample input text, and sample composed output are provided. (Appendices will be added for each additional document type identified for inclusion in this report.)

(1) Document Type Definition. The document type definitions were developed by interpreting the information concerning document structure presented in the appropriate military specifications and by analyzing sample ATOS documents. The type definition for a given document type specifies the generic identifiers (GIs) which are allowed in that document. Subsequently for each GI, the attributes, sub-element generic identifiers, and type of data (e.g., text, bitdata, etc.) are listed. An occurrence indicator reflects the frequency of use for each data element tag. Only one type of occurrence indicator per tag is allowed. In the document type definition, the occurrence indicators are included following each content element. If no symbol follows a tag, that data element is required and appears once. A question mark indicated the data element is optional and only appears once. A plus sign indicates that the data element is required at least once and may be used again. An asterisk implies optional and repeated use of that data element.

(2) Tag Descriptions. Explicit descriptions of each data element tag necessary to produce a document type is provided. In addition, tag attributes are discussed with an explanation of every possible value and a notation of the default value. Within each appendix, tag descriptions follow the document type definition and precede the document samples. These descriptions aid the reader in interpreting the tags and serve as a reference guide to reading the document type definitions.

(3) Sample Input Text and Composed Output. Sample input text is provided for each document type. Then samples, along with the composed output, illustrate the way in which tags are introduced into text to produce desired formatting results. The composed output conforms to rules found in each document's military specification.

### 1-3. REFERENCE PUBLICATIONS.

a. Referenced Documents. The primary referenced documents are as follows:

ISO/DIS 8879	Draft International Standard - Information Processing - Text and Office Systems - Standard Generalized Markup Language (SGML)
MIL-M-38784A	General Style and Format Requirements of Technical Manuals

### NOTE

In order to implement the SGML tagging schemes detailed in this report, it is necessary for the user to have a working knowledge of ISO/DIS 8879. This document can be obtained from the American National Standards Institute, 1430 Broadway, New York, NY 10018.

b. Applicable Documents. Various military specifications were referenced in detail when the document type definition and markup tags were created. The following publications are applicable to this report.

<u>Publication Number</u>	<u>Title</u>
MIL-M-38807	Preparation of Illustrated Parts Breakdown Technical Manuals, dated 28 November 1972
MIL-M-83499	Preparation of Safety and operational Supplements, dated 15 August 1975
MIL-T-38804A	Preparation of Time Compliance Technical Orders (TCTO), dated 6 February 1980
T.O. 00-5-15	Technical Manual, Air Force Time Compliance Technical Order System, dated 15 April 1983
T.O. 00-5-1	Section IV: Changes, Revisions, Supplements, Appendices, and Recission of Publications

## SECTION II

## SGML DECLARATION

&lt;! SGML

TRAN	TRANREF	"ISO 646 IRV"	
SYNTAX			
TRANREF	"ISO 646 IRV"		
FUNCTION	RE	13	
	RS	10	
	TAB	SEPCHAR 9	
NONCHAR	CONTROLS	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 127 255	
NAMING	LCNMSTRT	" "	
	UCNMSTRT	" "	
	LCNMCHAR	"_"	-- Lowercase hyphen, period are --
	UCNMCHAR	"_"	-- same as uppercase (45 46). --
	NAMECASE	GENERAL	YES
		ENTITY	NO
DELIM	GENERAL	SGMLREF	PIO [
			PIC ]
	SHORTREF	SGMLREF	"\"
			"@"
			"#"
NAMES	SGMLREF		
QUANTITY	GENERAL	SGMLREF	
	CAPACITY	SGMLREF	
FEATURES			
DOCUMENT	OMITTAG	YES	DATATAG
	RANK	NO	
	SHORTAG	NO	
DOCTYPE	CONCUR	YES	1
	SUBDOC	NO	

&gt;

# SECTION III

## CONCURRENT DOCUMENT TYPE DEFINITION

### PAGE LAYOUT STRUCTURE

<!DOCTYPE page -- TYPE DEFINITION PAGE STRUCTURE -- |

| -- ELEMENT | ATTRIBUTE               | MIN<br>VALUE | CONTENT  | EXCEP-<br>TIONS? DEFAULT -- |
|------------|-------------------------|--------------|--|-----------------------------|
| <!ELEMENT  |                         |              |  |                             |
| 0          | tm                      |              | (volume*   (front, body, rear?)   page +)  |                             |
| 1          | volume                  |              | (front, body, rear?)   |                             |
| 2          | front                   |              | ((((cover, warnpg?, titlepg, lep)   (titlepg, lep, warnpg?)), promul?, chgrec?, (foreword   preface)?, contents, iluslist?, tablist?, safesum?)   titlepg) |                             |
| 3          | body                    |              | (part +   chapter +   section +   page +)  |                             |
| 4          | rear                    |              | (appendix*, glossary?, index?, foldout*)   |                             |
| 5          | cover                   |              | (page)   |                             |
| 6          | titlepg                 |              | (page)   |                             |
| 7          | warnpg                  |              | (page +)   |                             |
| 8          | lep                     |              | (page +)   |                             |
| 9          | promul                  |              | (page +)   |                             |
| 10         | chgrec                  |              | (page +)   |                             |
| 11         | (foreword  <br>preface) |              | (page +)   |                             |
| 12         | contents                |              | (page +)   |                             |
| 13         | iluslist                |              | (page +)   |                             |
| 14         | tablist                 |              | (page +)   |                             |
| 15         | safesum                 |              | (page +)   |                             |
| 16         | part                    |              | (chapter +   section +   page +)   |                             |
| 17         | chapter                 |              | (section +   page +)   |                             |
| 18         | section                 |              | (page +)   |                             |
| 19         | appendix                |              | (page +)   |                             |

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- - ELEMENT		MIN	CONTENT	EXCEP- TIONS? DEFAULT - -
	ATTRIBUTE	VALUE		
20	glossary	(page + )		
21	index	(page + )		
22	page	(#CDATA)		
	folio	CDATA		REQUIRED
	level	NUMBER		0
> ] >				

## APPENDIX A

### MIL-M-38784A:

#### TYPE DEFINITION, TAG DESCRIPTIONS, SAMPLE INPUT, SAMPLE OUTPUT

```

<!DOCTYPE mila "MIL-M-38784A Document Type Definition" [
<!NOTATION iges          "Initial Graphics Exchange Standard" >
<!NOTATION cgm           "Computer Graphics Metafile" >
<!NOTATION fax           "CCITT Group 4 Facsimile" >
<!ENTITY % nums          "partno | tono | rdno | pubno | modno | stkno" -- NUMBERS -->
<!ENTITY % parstruc      "p0 | s0 | para" -- Paragraph Structure Elements -->
<!ENTITY % hle           "%parstruc; | emerg | npl | ni | rdi" -- High Level Elements -->
<!ENTITY % attn          "warning | caution | note" -- Special Attention Elements -->
<!ENTITY % rets          "figref | tabref | pararef | secref | appref | partref | chapref | voiref" -- Cross Rets -->
<!ENTITY % txt           "%symbols; | %nums; | %rets; | #CDATA" -- Text Data -->
<!ENTITY % symbols       "flag | sup | sub | symbol" -- Symbols -->
<!ENTITY lang1           PUBLIC "ISO 8879 LANG-1" -- Latin Alphabetic Characters -- >
<!ENTITY lang2           PUBLIC "ISO 8879 LANG-2" -- Greek Alphabetic Characters -- >
<!ENTITY lang3           PUBLIC "ISO 8879 LANG-3" -- Cyrillic Alphabet -- >
<!ENTITY gen1            PUBLIC "ISO 8879 GEN-1" -- Numeric and Special Graphic Characters -- >
<!ENTITY gen2            PUBLIC "ISO 8879 GEN-2" -- Diacritical Marks as Separate Graphic Characters -- >
<!ENTITY gen3            PUBLIC "ISO 8879 GEN-3" -- Publishing Characters and Others -- >
<!ENTITY gen4            PUBLIC "ISO 8879 GEN-4" -- Proposed Box and Line Drawing Characters -- >
<!ENTITY tech1           PUBLIC "ISO 8879 TECH-1" -- Technical Characters -- >
<!ENTITY tech2           PUBLIC "ISO 8879 TECH-2" -- Greek Symbols for Technical Use -- >
<!ENTITY tech3           PUBLIC "ISO 8879 TECH-3" -- Alternate Greek Symbols for Technical Use -- >
<!ENTITY amsm            PUBLIC "ISO 8879 AMS-M" -- Mathematical Symbols, misc. -- >
<!ENTITY amsb1           PUBLIC "ISO 8879 AMS-BL" -- Mathematical Symbols, binary & large operators -- >
<!ENTITY amsr            PUBLIC "ISO 8879 AMS-R" -- Mathematical Symbols, Relations -- >
<!ENTITY amsn            PUBLIC "ISO 8879 AMS-N" -- Mathematical Symbols, Negated Relations -- >
<!ENTITY amsm            PUBLIC "ISO 8879 AMS-M" -- Mathematical Symbols, misc. -- >
<!ENTITY amsa            PUBLIC "ISO 8879 AMS-A" -- Mathematical Symbols, Arrow Relations -- >
<!ENTITY amsko           PUBLIC "ISO 8879 AMS-CO" -- Mathematical Symbols, Closing and Opening
                        Delimiters -- >

<!ENTITY etag            "< e >" >
<!SHORTREF emap          "\" etag >
<!USEMAP emap            "< table >" >
<!ENTITY psrtag          "< partno >" >
<!ENTITY psetag          "< serno >" >
<!SHORTREF psmac         "&RE;" psrtag "\" psetag >
<!USEMAP psmac           "< psiist >" >
<!ENTITY chivitag        "< chgivl >" >
<!ENTITY datetag         "< date >" >
<!SHORTREF idatemap      "&RE;" chivitag "\" datetag >
<!USEMAP idatemap        "< idate >" >
<!ENTITY symtag          "< def >" >
<!SHORTREF symmac        "\" symtag >
<!USEMAP symmac          "< symsect >" >
<!ENTITY partag          "< /head >" >
<!SHORTREF parmac        "\" partag >
<!USEMAP parmac          "< p0 >" >
<!USEMAP parmac          "< para >" >

```

```

<!ENTITY modtag      "<modno>" >
<!SHORTREF modmap    "&RE;" modtag >
<!USEMAP modmap      "<modlist>" >
<!ENTITY parttag     "<partno>" >
<!SHORTREF partmap   "&RE;" parttag >
<!USEMAP partmap     "<partlist>" >
<!ENTITY stktag      "<stkno>" >
<!SHORTREF stkmap    "&RE;" stktag >
<!USEMAP stkmap      "<stklist>" >
<!ENTITY indextag    "<h0id>" >
<!SHORTREF indexmap  "@ " indextag >
<!USEMAP indexmap    "<index>" >
<!ENTITY copytag     "<totalcop>" >
<!SHORTREF copymap   "\" copytag >
<!USEMAP copymap     "<copyno>" >

```

-- ELEMENT		MIN	CONTENT	EXCEP-	DEFAULT --
ATTRIBUTE		VALUE		TIONS?	
<!ELEMENT					
0	tm	- -	(volume*   (front, body, rear?))	+ (idxf   ftnote)	
	security	(u c s ts)			u
	branch	(a n f mc)			f
	status	(p d a b)			a
	change	NUMBER			0
	content	(f a)			f
1	volume	- 0	(front, body, rear?)		
2	front	- 0	(((((cover, warnpg?, titlepg, lep)   (cover, warnpg?, lep)   (titlepg, lep, warnpg?)), promul?, chgrec?, (foreword   preface)?, contents, iluslist?, tablist?, safesum?)   titlepg)		
3	body	- 0	((part & ddsheet?) +   (chapter & ddsheel?) +   section & ddsheet?) +   (%parstruc: & ddsheet?) + )		
4	rear	- 0	(appendix*, glossary?, index?, foldsect?)		
5	cover	- -	(copyno?, pubno + , formerly?, pubid, title, maintivl*, nomen, (mti, contrnoi + , notice + , basedate?, chgdate?)		
6	titlepg	- -	(copyno?, pubno + , formerly?, pubid, title, maintivl*, nomen, (mti, contrnoi + , notice + , basedate, chgdate?)		
7	warnpg	- -	(warning + )		
8	lep	- -	(date + , totalpgs, chgpgs + )		

ELEMENT	ATTRIBUTE	MIN	VALUE	CONTENT	EXCEPTIONS?	DEFAULT
9 promul		-	-	(#CDATA)		
10 chgrec		-	-	(#CDATA)		
11 (foreword   preface)		-	-	(para, (para   list   symsect)*, sigblk*)		
12 contents		-	-	(note*, frontr?, (partr?, ((chaptr, sparar+) +   (chaptr?, (sectr, sparar+) +) +)), (appr. aparar*)*, glossr?, indexr?)		
13 iluslist		-	-	(note*, sfigr+, afigr*, foldr*)		
14 tablist		-	-	(note*, stabr+, atabr*)		
15 safesum		-	-	(%attn;* & para +)		

-- ELEMENT		MIN	CONTENT	EXCEP-
ATTRIBUTE	VALUE			TIONS? DEFAULT --
-- Cover Page   Title Page Elements --				
16 copyno	- o	(thiscopy, totalcop)		
17 pubno	- o	(#CDATA)		
18 formerly	- o	(#CDATA)		
19 maintlvl	- o	(#CDATA)		
20 nomen	- o	(eqptname, eqptno*, (modno   modlist   partno   serno   partlist   plist   stkno   stklist   table)*)		
	security	(u   c   s   ts)		u
21 mfr	- o	(#CDATA)		
22 contrno	- o	(#CDATA)		
23 notice	- o	(%txt;)		
	type	(d   a   f   p   g   b)		NULL
24 modlist	- o	(modno +)		
25 partlist	- o	(partno +)		
26 plist	- o	(partno, serno) +		
27 stklist	- o	(stkno +)		
28 eqptno	- o	(#CDATA)		
29 eqptname	o o	(#CDATA)		

-- ELEMENT		MIN	CONTENT	EXCEP-
ATTRIBUTE	VALUE			TIONS? DEFAULT --
-- List of Effective Pages Elements --				
30 idate	- o	(chglvl, date) +		
31 totalpgs	- o	(#CDATA)		
32 chgpgs	- o	(folio, status?, chglvl) +		

-- ELEMENT		MIN	CONTENT	EXCEP-	DEFAULT --
ATTRIBUTE		VALUE		TIONS?	
-- Foreword   Preface Elements --					
33	sigblk	- 0	(sighd, byline)		
34	sighd	0 0	(#CDATA)		
35	byline	- 0	(#CDATA)		
36	symsect	- -	(symr + )		
37	symr	- 0	(sym, def)		
38	sym	0 0	(#CDATA)		

-- ELEMENT		MIN	CONTENT	EXCEP-
ATTRIBUTE	VALUE			TIONS? DEFAULT --
-- Table of Contents Elements --				
39	frontr	- o	(([ptnum,""], iptnum), ([chapnum,""], ichapnum), ([sectnum,""], isectnum), ([h0num,""], ih0num), name, folio?)	
40	partr	- o	(([ptnum,""], iptnum), ([chapnum,""], ichapnum), ([sectnum,""], isectnum), ([h0num,""], ih0num), name, folio?)	
41	chapr	- o	(([ptnum,""], iptnum), ([chapnum,""], ichapnum), ([sectnum,""], isectnum), ([h0num,""], ih0num), name, folio?)	
42	sectr	- o	(([ptnum,""], iptnum), ([chapnum,""], ichapnum), ([sectnum,""], isectnum), ([h0num,""], ih0num), name, folio?)	
43	sparar	- o	(([ptnum,""], iptnum), ([chapnum,""], ichapnum), ([sectnum,""], isectnum), ([h0num,""], ih0num), name, folio?)	
44	appr	- o	(([ptnum,""], iptnum), ([chapnum,""], ichapnum), ([appnum,""], iappnum), ([h0num,""], ih0num), name, folio?)	
45	aparar	- o	(([ptnum,""], iptnum), ([chapnum,""], ichapnum), ([appnum,""], iappnum), ([h0num,""], ih0num), name, folio?)	
46	glossr	- o	(([ptnum,""], iptnum), ([chapnum,""], ichapnum), ([sectnum,""], isectnum), ([h0num,""], ih0num), name, folio?)	
47	indexr	- o	(([ptnum,""], iptnum), ([chapnum,""], ichapnum), ([sectnum,""], isectnum), ([h0num,""], ih0num), name, folio?)	

-- ELEMENT	ATTRIBUTE	MIN	VALUE	CONTENT	EXCEP- TIONS? DEFAULT --
-- List of Illustrations Elements --					
48 sfigr	- o		(((ptnum,"."), iptnum), ([chapnum,"."), ichapnum), ([sectnum,"."), isectnum), ([fignum,"."), ifignum), name, folio?)		
49 afigr	- o		(((ptnum,"."), iptnum), ([chapnum,"."), ichapnum), ([appnum,"."), iappnum), ([fignum,"."), ifignum), name, folio?)		
50 foldr	- o		(((ptnum,"."), iptnum), ([chapnum,"."), ichapnum), ([sectnum,"."), isectnum), ([foldnum,"."), ifoldnum), name, folio?)		

-- ELEMENT	ATTRIBUTE	MIN VALUE	CONTENT	EXCEP- TIONS? DEFAULT --
-- List of Tables Elements --				
51 stabr	- o	((iptnum,""), iptnum), ([chapnum,""], ichapnum), ([sectnum,""], isectnum), ([tabnum,""], itabnum), name, folio?)		
52 atabr	- o	((iptnum,""), iptnum), ([chapnum,""], ichapnum), ([appnum,""], iappnum), ([tabnum,""], itabnum), name, folio?)		

-- ELEMENT	ATTRIBUTE	MIN	VALUE	CONTENT	EXCEP- TIONS?	DEFAULT --
-- Body Elements --						
53 part		- -		(title, (chapter +   section +))		
	id		ID			NULL
	status		(i   d   n   o)			n
	change		NUMBER			0
54 chapter		- -		(title, (section +   %hle; +))		
	id		ID			NULL
	status		(i   d   n   o)			n
	change		NUMBER			0
55 section		- -		(title, %hle; +)		
	id		ID			NULL
	status		(i   d   n   o)			n
	short		(y   n)			n
	change		NUMBER			0
56 emerg		- -		(title?, %parstruc; +)		

-- ELEMENT	MIN	CONTENT	EXCEP- TIONS?	DEFAULT --
ATTRIBUTE	VALUE			
-- Paragraph Structures --				
57 p0	- o	((warning?, caution?, note?) & head), paratext, list?, note?, ((p1, p1+)   (s1, s1+))*)	+ (figure   table   chart)	
	security	(u   c   s   ts)		u
	status	(i   d   n   o)		n
	id	ID		NULL
	change	NUMBER		0
58 s0	- o	(warning?, caution?, note?, paratext, list?, note?, ((p1, p1+)   (s1, s1+))*)		
	security	(u   c   s   ts)		u
	status	(i   d   n   o)		n
	id	ID		NULL
	change	NUMBER		0
59 paratext	o o	(%txt;   list) +		
60 p1	- o	((warning?, caution?, note?) & head), paratext, list?, note?, ((p2, p2+)   (s2, s2+))*)		
	security	(u   c   s   ts)		u
	status	(i   d   n   o)		n
	id	ID		NULL
	change	NUMBER		0
61 s1	- o	(warning?, caution?, note?, paratext, list?, note?, ((p2, p2+)   (s2, s2+))*)		
	security	(u   c   s   ts)		u
	status	(i   d   n   o)		n
	id	ID		NULL
	change	NUMBER		0
62 p2	- o	((warning?, caution?, note?) & head), paratext, list?, note?, ((p3, p3+)   (s3, s3+))*)		
	security	(u   c   s   ts)		u
	status	(i   d   n   o)		n
	id	ID		NULL
	change	NUMBER		0

-- ELEMENT		MIN	CONTENT	EXCEP-	DEFAULT --
	ATTRIBUTE	VALUE		TIONS?	
63	s2	- o	(warning?, caution?, note?, paratext, list?, note?, ((p3, p3+)   (s3, s3+))*)		
	security	(u c s ts)		u	
	status	(i d n o)		n	
	id	ID		NULL	
	change	NUMBER		0	
64	p3	- o	((warning?, caution?, note?) & head), paratext, list?, note?, ((p4, p4+)   (s4, s4+))*)		
	security	(u c s ts)		u	
	status	(i d n o)		n	
	id	ID		NULL	
	change	NUMBER		0	
65	s3	- o	(warning?, caution?, note?, paratext, list?, note?, ((p4, p4+)   (s4, s4+))*)		
	security	(u c s ts)		u	
	status	(i d n o)		n	
	id	ID		NULL	
	change	NUMBER		0	
66	p4	- o	((warning?, caution?, note?) & head), paratext, list?, note?)		
	security	(u c s ts)		u	
	status	(i d n o)		n	
	id	ID		NULL	
	change	NUMBER		0	
67	s4	- o	(warning?, caution?, note?, paratext, list?, note?)		
	security	(u c s ts)		u	
	status	(i d n o)		n	
	id	ID		NULL	
	change	NUMBER		0	

-- ELEMENT	MIN	CONTENT	EXCEP-	DEFAULT --
ATTRIBUTE	VALUE		TIONS?	
-- Figure Elements --				
68 figure	- -	(NDATA, (legend? & title))	- (figure   table   chart)	
width	NUMBER			REQUIRED
depth	NUMBER			REQUIRED
id	ID			NULL
status	(i   d   n   o   r)		n	
float	(y   n)		n	
security	(u   c   s   t)		u	
data	NOTATION (iges   cgm   fax)		iges	
location	CONREF			REQUIRED
graphic	(y   n)		y	
rotation	(0   90   180   270)		0	
change	NUMBER		0	

-- ELEMENT		MIN	CONTENT	EXCEP-	DEFAULT --
		ATTRIBUTE	VALUE	TIONS?	
-- Table Elements --					
69	table	- -	(title?, thead?, tbody)	- (figure   table   chart)	
	col		NUMBER		REQUIRED
	sec		(u   c   s   ts)	u	
	status		(i   d   n   o   r)	n	
	id		ID	NULL	
	type		CDATA	REQUIRED	
	content		(f   a)	f	
	change		NUMBER	0	
70	thead	- -	(r +)		
71	tbody	- -	(r +)		
72	r	- 0	(e +)		
73	e	- 0	(%txt;)		
74	chart	- -	(title?, chthd?, chtbdy)	- (figure   table   chart)	
	col		NUMBER		REQUIRED
	sec		(u   c   s   ts)	u	
	status		(i   d   n   o   r)	n	
	id		ID	NULL	
	type		CDATA	REQUIRED	
	content		(f   a)	f	
	change		NUMBER	0	
75	chthd	- -	(r +)		
76	chtbdy	- -	(r +)		

-- ELEMENT	MIN	CONTENT	EXCEP- TIONS?	DEFAULT --
ATTRIBUTE	VALUE			
-- Warning   Caution   Note Elements --				
77 warning	- -	(title?, (figure   paratext   list) +)		
type	(v   n)			n
number	(y   n)			n
security	(u   c   s   ts)			u
78 caution	- -	(figure   paratext   list) +		
number	(y   n)			n
security	(u   c   s   ts)			u
79 note	- -	(figure   paratext   list) +		
number	(y   n)			n
security	(u   c   s   ts)			u

-- ELEMENT	ATTRIBUTE	MIN	CONTENT	EXCEP- TIONS?	DEFAULT --
-- Maintenance Parts List Elements --					
80	mpl	- -	(mplbody)		
	form		NUMBER		0
	security		(u   c   s   ts)		u
	column		NUMBER		REQUIRED
81	mplbody	- -	(mplr +)		
82	mplr	- 0	(fin?, partno, fscm?, desc. unit?, uoc?, smr?)		

-- ELEMENT		MIN	CONTENT	EXCEP-
ATTRIBUTE	VALUE			TIONS? DEFAULT --
-- Numerical Index Elements --				
83 ni	(nibody)	- -		0
form	NUMBER			REQUIRED
column	NUMBER			u
security	(u   c   s   ts)			
84 nibody	(nir +)	- -		
85 nir	(partno?, fin, qty?, smr?)	- 0		

-- ELEMENT		MIN	CONTENT	EXCEP-	DEFAULT --
		ATTRIBUTE	VALUE	TIONS?	
-- Reference Designation Index Elements --					
86	rdi	- -	(rdibody)		
	form		NUMBER		0
	column		NUMBER		REQUIRED
	security		(u c s ts)		u
87	rdibody	- -	(rdir +)		
88	rdir	- 0	(rdino?, fin)		

-- ELEMENT	ATTRIBUTE	MIN	VALUE	CONTENT	EXCEP- TIONS?	DEFAULT --
-- Common IPB Elements --						
89	fin	- 0	(((volnum,"-"), (fignum,"-"))   (fignum,"-"))?, indnum)			
90	fscm	- 0	(#CDATA)			
91	desc	- 0	(%txt;)			
92	unit	- 0	(#CDATA)			
93	uoc	- 0	(#CDATA)			
94	smr	- 0	(#CDATA)			
95	qty	- 0	(#CDATA)			
96	rdino	- 0	(#CDATA)			

-- ELEMENT	MIN	CONTENT	EXCEP-
ATTRIBUTE	VALUE		TIONS?
-- Difference Data Sheet Elements --			
97 ddsheet	- -	(ddfront, ddbody)	
security		(u   c   s   ts)	u
98 ddfront	o o	(dds, nomen + , (partno   modno   serno   type), title)	
99 ddbody	o o	(%parstruc;   figure   table) +	
100 dds	o o	(#CDATA)	
101 type	- o	(#CDATA)	

- - ELEMENT	MIN	CONTENT	EXCEP-
ATTRIBUTE	VALUE		TIONS? DEFAULT - -
-- Appendix Elements --			
102 appendix	- -	(title, %hle; +)	
id	ID		NULL
status	(id n o)		n
change	NUMBER		0

-- ELEMENT	MIN	CONTENT	EXCEP-	DEFAULT --
ATTRIBUTE	VALUE		TIONS?	
-- Glossary Elements --				
103 glossary	- -	(glositem + )		
104 glositem	- o	(term, def)		
105 term	o o	(#CDATA)		

-- ELEMENT		MIN	CONTENT	EXCEP-
ATTRIBUTE	VALUE			TIONS? DEFAULT --
-- Index Elements --				
106 index	- -	(item1 +)		
107 item1	- o	((entry1, h0id?), item2*)		
108 item2	- o	((entry2, h0id?), item3*)		
109 item3	- o	((entry3, h0id?), item4*)		
110 item4	- o	((entry4, h0id?), item5*)		
111 item5	- o	(entry5, h0id)		
112 entry1	o o	(#CDATA)		
113 entry2	o o	(#CDATA)		
114 entry3	o o	(#CDATA)		
115 entry4	o o	(#CDATA)		
116 entry5	o o	(#CDATA)		

-- ELEMENT	MIN	CONTENT	EXCEP-	DEFAULT - -
ATTRIBUTE	VALUE		TIONS?	
-- Foldsect Elements --				
117 foldsect	- 0	(foldout +)		
118 foldout	- -	(NDATA, (legend? & title))		
id	ID			NULL
status	(i   d   n   o   r)			n
security	(u   c   s   ts)			u
data	NOTATION (iges   cgm   fax)			iges
location	CONREF			REQUIRED
graphic	(y   n)			y
rotation	(0   90   180   270)			0
change	NUMBER			0
119 legend	- -	(symsect   para   list) +		

-- ELEMENT		MIN	CONTENT	EXCEP-
ATTRIBUTE		VALUE		TIONS? DEFAULT --
-- Basic Document Elements --				
120	appnum	- d	(#CDATA)	
121	appref	- o	NONE	
	refid	IDREF		NULL
122	(basedate   chgdate   date)	- o	(#CDATA)	
123	chapnum	- d	(#CDATA)	
124	chapref	- o	NONE	
	refid	IDREF		NULL
125	chgbar	- -	(%txt:)	
	change	NUMBER		0
126	chglvl	- o	(#CDATA)	
127	def	- o	(%txt:)	
128	emph	- -	(%txt:)	
	type	(q   i   b   u   s   x)		q
129	fignum	- d	(#CDATA)	
130	figref	- o	NONE	
	refid	IDREF		NULL
	sheet	NUMBER		NULL
131	flag	- o	NONE	
	type	CDATA		REQUIRED
132	fol	o o	(#CDATA)	
133	foldnum	- d	(#CDATA)	
134	folio	o o	([sectnum, '-' ]?, fol)	
135	ftnote	- -	(%txt:)	- ftnote
	box	(y   n)		n
	over	(y   n)		n
136	h0id	- o	([sectnum, '-' ]?, h0num)	
137	h0num	- d	(#CDATA)	
138	head	o -	(#CDATA)	
139	iappnum	o o	(#CDATA)	
140	ichapnum	o o	(#CDATA)	

-- ELEMENT		MIN	CONTENT	EXCEP- TIONS?	DEFAULT --
	ATTRIBUTE	VALUE			
141	ifignum	o o	(#CDATA)		
142	idxf	- -	(%txt;)		
	ref1		CDATA		NULL
	ref2		CDATA		NULL
	ref3		CDATA		NULL
	ref4		CDATA		NULL
143	ih0num	o o	(#CDATA)		
144	indnum	o o	(#CDATA)		
145	iptnum	o o	(#CDATA)		
146	isectnum	o o	(#CDATA)		
147	itabnum	o o	(#CDATA)		
148	item	- o	(#CDATA)		
149	list	- -	(item +)		
	type		(n   b)		b
150	modno	- o	(#CDATA)		
151	name	- o	(%txt;)		
	security		(u   c   s   ts)		u
152	para	- o	(head?, (paratext   %attn;) +)		
	security		(u   c   s   ts)		u
153	pararef	- o	NONE		
	refid		IDREF		NULL
154	partno	- o	(#CDATA)		
155	partref	- o	NONE		
	refid		IDREF		NULL
156	ptnum	- d	(#CDATA)		
157	secref	- o	NONE		
	refid		IDREF		NULL
158	sectnum	- d	(#CDATA)		
159	serno	- o	(#CDATA)		
160	status	- o	(#CDATA)		
161	stkno	- o	(#CDATA)		
162	sub	- o	NONE		
	type		CDATA		REQUIRED

-- ELEMENT		MIN	CONTENT	EXCEP- TIONS?	DEFAULT --
ATTRIBUTE		VALUE			
163	sup	- o	NONE		
	type		CDATA		REQUIRED
164	symbol	- o	NDATA		
	width		NUMBER		REQUIRED
	depth		NUMBER		REQUIRED
	data		NOTATION (iges   cgm   fax)		iges
	location		CONREF		REQUIRED
	graphic		(y   n)		y
	rotation		(0   90   180   270)		0
165	tabnum	o o	(#CDATA)		
166	tabref	- o	NONE		
	refid		IDREF		NULL
167	thiscopy	o o	(#CDATA)		
168	totalcop	- o	(#CDATA)		
169	title	o o	(#CDATA)		
	security		(u   c   s   ts)		u
170	tono	- -	(#CDATA)		
171	volnum	o d	(#CDATA)		
172	volref	- o	NONE		
	refid		IDREF		NULL

&gt; ] &gt;



### Descriptions of Tags for COVER/TITLE PAGE/TITLE BLOCK

TAG	ELEMENT	DESCRIPTION
<b>&lt;tm</b> <b>security = x</b> <b>branch = x</b> <b>status = x</b> <b>change = x</b> <b>content = x&gt;</b>	Begin technical manual	<p>Begins the Technical Manual, and sets the heading and footing for subsequent pages.</p> <p style="text-align: center;"><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = "U". Specifies the classification of the document. If the classification of the overall document is unclassified (the default), the security attribute may be omitted for other calls within the document.</p> <p><b>Branch:</b> "F" (Air Force), "A" (Army), "N" (Navy), or "MC" (Marine Corps). Default = "F". Specifies the military branch of the procuring activity (branch primarily responsible for the document).</p> <p><b>Status:</b> "A" (double-column text), "B" (single-column text), "D" (draft), or "P" (preliminary title). Default = "A". Specifies the current form of the document publication.</p> <p><b>Change:</b> Any number. Default = 0. Specifies the current change level of the document.</p> <p><b>Content:</b> "F" (full) or "A" (abbreviated). Default = "F". Indicates whether the manual is a full manual (F) which includes front matter (e.g., List of Effective Pages, Table of Contents, etc.) or an abbreviated, non-sectioned document (A).</p>
<b>&lt;volume&gt;</b>	Begin volume of technical manual	Begins a new volume in a series of technical manuals, all of which have the same publication number.
<b>&lt;front&gt;</b>	Begin front matter	Begins the front matter of the document.
<b>&lt;cover&gt;</b>	Begin cover page	<p>Begins a technical manual cover page.</p> <p><b>NOTE:</b> Either the &lt;cover&gt; tag or the &lt;titlepg&gt; tag must be specified, but not both. All following tags apply to both the cover and title page.</p>
<b>&lt;titlepg&gt;</b>	Begin title page	<p>Begins the technical manual title page.</p> <p><b>NOTE:</b> Either the &lt;cover&gt; tag or the &lt;titlepg&gt; tag must be specified, but not both. All following tags apply to both the cover and title page.</p>
<b>&lt;copyno&gt;</b>	Copy number notice	Sets the copy number notice text: "Copy No. x of y copies". The operator must specify the appropriate values where x = the manual copy number and y = the total number of copies. These values must be entered immediately after the <copyno> tag and must be separated by a backslash.
<b>&lt;pubno&gt;</b>	Publication number	Sets the publication number entry on the cover/title page and draws the rule beneath it. All prefixes (e.g., T.O.) must be specified

TAG	ELEMENT	DESCRIPTION
<formerly>	Former publication number	Sets the former publication number on the cover/title page. All prefixes must be specified.
<pubid>	Publication identification name	Centers the operator-entered publication name below the rule on the cover/title page. If the tag is entered without text, leading will be set without text.
<title security = x >	Title	Centers the operator-entered manual title on the cover/title page  <b>Optional Attribute(s)</b>  <b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the title.
<maintlvl>	Maintenance level	Centers the operator-entered maintenance level of the manual on the cover/title page.
<nomen security = x >	Nomenclature of equipment	Centers the operator-entered equipment nomenclature on the cover/title page  <b>Optional Attribute(s)</b>  <b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the equipment nomenclature.
<eqptno>	Equipment number	Centers the operator-entered equipment number on the cover/title page. If, after the equipment number, a list of model, part, serial, or stock numbers is desired, it must begin with the call to the appropriate list (described below) or table.
<modlist>	Model numbers list	Sets the operator-entered list of model numbers on the cover/title page in two columns beneath the centered heading "MODEL NUMBERS". Each model number must be entered on a separate line.
<partlist>	Part numbers list	Sets the operator-entered list of part numbers on the cover/title page in two columns beneath the centered heading "PART NUMBERS". Each part number must be entered on a separate line.
<pslist>	Part/serial numbers list	Sets the operator-entered list of part and serial numbers on the cover/title page. The numbers are listed in a two-column table with the heading "PART NUMBER" on the left and "SERIAL NUMBER" on the right. Each part number must be followed by a backslash and the serial number; each part/serial number must be entered on a separate line.
<stklist>	Stock number list	Sets the operator-entered list of stock numbers on the cover/title page in two columns beneath the centered heading "STOCK NUMBERS". Each stock number must be entered on a separate line.
<modno> <partno> <serno> <stkno>	Model number Part number Serial number Stock number	These tags center the operator-entered number on the cover/title page
<mfr>	Manufacturer's name	Centers the operator-entered manufacturer's name on the cover/title page.
<contrno>	Contract number	Centers the operator-entered contract number on the cover/title page

TAG	ELEMENT	DESCRIPTION
<notice type=x>	Notices	<p>Sets notices on the cover/title page.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Type:</b> "B" (branch), "D" (distribution), "A" (authority), "P" (pageclass) for "This page is unclassified" notice, "F" (fouo) for "For Official Use Only" notice, and "G" (grading) for downgrading notices. Default = NULL.</p> <p>The <b>distribution notice "D"</b> sets the standard text "This publication is required for official use or for administrative or operational purposes only. Distribution is limited to US Government agencies. Other requests for this document must be referred to", followed by the operator-entered distribution agency.</p> <p>The <b>authority notice "A"</b> sets and centers the standard text "Published under authority of the Secretary of the Air Force."</p> <p>The <b>branch notice "B"</b> is an unknown operator-entered notice which is centered at the bottom of the cover/title page.</p> <p>Specifies the type of notice to be inserted on the page. Notices for which the type has not been specified and downgrading notices are entered by the operator; they are indented and set beneath the previous entry. Authority and page classification notices contain standard text and are set without operator entry of text. Distribution notices require the operator to enter the name of the distribution agency, as the standard distribution text is set with a citation to the operator-entered agency.</p>
<basedate>	Base date	<p>Sets the lower rule, as well as the operator-entered publication base date, on the cover or title page.</p> <p><b>NOTE:</b> If the manual has both a cover and a title page, the date appears on the title page only and is omitted from the cover page.</p>
<chgdate>	Change date	<p>Sets the operator-entered publication change date beneath the base date on the cover or title page.</p> <p><b>NOTE:</b> If the manual has both a cover and a title page, the date appears on the title page only and is omitted from the cover page.</p>
</cover>	End cover	Ends the cover page.
</titlepg>	End title page	Ends the title page. Sets the security notice if one is required.

### Descriptions of Tags for WARNING PAGE

TAG	ELEMENT	DESCRIPTION
<b>&lt;warnpg&gt;</b>	Begin warning page	Begins the warning page. Sets up the footing (in lower-case letters.) The highest security classification for any text on the page will be centered on the first line of the heading and the last line of the footing. Text on this page can be entered by the operator following the appropriate calls.
<b>&lt;warning security = x number = x type = x&gt;</b>	Begin warning	<p>Sets and centers the page heading "WARNING" above the first line of text to follow. The warning head may be followed with a title, paragraph, or list.</p> <p><b>NOTE:</b> A horizontal rule is set (full measure) between multiple warnings.</p> <p style="text-align: center;"><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the warning.</p> <p><b>Number:</b> "N" (no), "Y" (yes). Default = "N". Optional numeric identification of the warning for reference purposes; warnings will be numbered in order of occurrence.</p> <p><b>Type:</b> "V" (vital) or "N" (non-vital). Default = "N". Specifies whether the warning is vital or not. All vital warnings appear on the warning page.</p>
<b>&lt;title&gt;</b>	Warning title	Sets the title of the warning.
<b>&lt;para security = x&gt;</b>	Paragraph	<p>Sets the operator-entered paragraph text with no number.</p> <p><b>NOTE:</b> The &lt;para&gt; tag may be followed by a paragraph title. This title is ended, and the actual text of the paragraph begun, with a backslash character. If there is no title for the paragraph, the tag should be followed immediately with a backslash.</p> <p style="text-align: center;"><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the paragraph.</p>
<b>&lt;list type = x&gt;</b>	Begin list	<p>Begins an operator-entered list.</p> <p style="text-align: center;"><b>Optional Attribute(s)</b></p> <p><b>Type:</b> "B" (bulleted list), "N" (numerical list). Default = "B". Specifies the type of list contained within the text.</p>
<b>&lt;item&gt;</b>	List item	Begins a list item. This tag must follow the <list> tag, as it begins the current operator-entered item and ends the previous item.
<b>&lt;/list&gt;</b>	End list	Ends the last item of an operator-entered list as well as ends the list.

TAG	ELEMENT	DESCRIPTION
</warning>	End warning	Ends warning.
</warnpg>	End warning page	Ends the warning page.

**Descriptions of Tags for  
LIST OF EFFECTIVE PAGES**

TAG	ELEMENT	DESCRIPTION
<lep>	Begin list of effective pages	Begins the List of Effective Pages. Sets the head and foot (in upper-case letters) for the List of Effective Pages.
<idate>	Issue date	Sets the "dates of issue" standard text as well as the operator-entered issue date and optional change dates. On the first line following the call, the operator must enter the base level (0), a backslash, and the original publication date. Each additional change level/date entry must be entered on a separate line in the same form: change level, backslash, change date, and carriage return.
<totalpgs>	Total pages	Sets the "total pages" standard text. The tag should be followed by the number of total pages in the manual. The standard text is set with the operator-entered number in the correct position.
<chgpgs>	Change pages	Begins the operator-entered page number, appropriate deleted/added/blank status, and current change level list. Sets the headings "Page No." and "Change No.".
<folio>	Folio number	Sets the folio number entry.
<status>	Status	Sets the status of the folio (blank, deleted, added), if applicable.
<chglvl>	Change level	Sets the highest current change level of the folio.
</lep>	End LEP	Ends LEP page.

**Descriptions of Tags for  
PROMULGATION PAGE**

<b>TAG</b>	<b>ELEMENT</b>	<b>DESCRIPTION</b>
<b>&lt;promul&gt;</b>	Begin promulgation page	Begins the promulgation page. Sets the footing (in lower-case letters).
<b>&lt;/promul&gt;</b>	End promulgation page	Ends the promulgation page.

Descriptions of Tags for  
CHANGE RECORD

TAG	ELEMENT	DESCRIPTION
<b>&lt;chgrec&gt;</b>	Begin change record	Begins the change record page.
<b>&lt;/chgrec&gt;</b>	End change record	Ends the change record page.

### Descriptions of Tags for FOREWORD/PREFACE PAGE

TAG	ELEMENT	DESCRIPTION
<b>&lt;foreword&gt;</b>	Begin foreword	Begins the foreword page on the next page of the document. Sets the footing (in lower-case roman numerals). Centers the page title, "FOREWORD".
<b>&lt;preface&gt; *</b>	Begin preface	Begins the preface page on the next page of the document. Sets the footing (in lower-case roman numerals). Centers the page title, "PREFACE".
<b>&lt;para security = x&gt;</b>	Paragraph	<p>Sets the operator-entered paragraph of text with no number and no indent (full measure).</p> <p><b>NOTE:</b> The &lt;para&gt; tag may be followed by a paragraph title. This title is ended, and the actual text of the paragraph begun, with a backslash character. If there is no title for the paragraph, the tag should be followed immediately with a backslash.</p> <p style="text-align: center;"><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has previously been specified, it defaults to "U". Specifies the classification of the foreword or preface paragraph.</p>
<b>&lt;symsect&gt;</b>	Begin symbol list	Begins the listing of symbol definitions. The listing is centered on the page.
<b>&lt;symr&gt;</b>	Begin new symbol row	The <symr> consists of a symbol and the symbol definition. The symbol must be separated from its definition by a backslash character. Each symbol and definition listed must begin with a new <symr> tag.
<b>&lt;/symsect&gt;</b>	End symbol list	Ends the symbol definition listing.
<b>&lt;sigblk&gt;</b>	Signature block	Sets the operator-entered signature block. Indents from the left, adds leading, and keeps the <sigblk> with the previous text. Lead will be added automatically and a line rule is set for a signature.
<b>&lt;byline&gt;</b>	Begin name and title block	Begins the name and title of the signature block. Each line must be entered on a separate text editor line.
<b>&lt;/foreword&gt; *</b>	End foreword	Ends the foreword page.
<b>&lt;/preface&gt; *</b>	End preface	Ends the preface page.

Only one set of tags can be used at any one time:  
 <foreword>, </foreword> or <preface>, </preface>.

**Descriptions of Tags for  
TABLE OF CONTENTS/LIST OF ILLUSTRATIONS/LIST OF TABLES**

<b>TAG</b>	<b>ELEMENT</b>	<b>DESCRIPTION</b>
<b>&lt; contents &gt;</b>	Begin table of contents	Begins the Table of Contents on the next page of the document front matter. Sets the footing (in lower-case roman numerals). Centers the page title, "TABLE OF CONTENTS".
<b>&lt; frontr &gt;</b>	Front matter row	Begins entry of a front matter page in the Table of Contents. The entry consists of the front matter page title and the page number on which it falls.
<b>&lt; partr &gt;</b>	Part row	Begins entry of a new part in the Table of Contents. The entry consists of the part number, the part title, and the page number on which it falls.
<b>&lt; chapr &gt;</b>	Chapter row	Begins entry of a new chapter in the Table of Contents. The entry consists of the chapter number, the chapter title, and the page number on which it falls.
<b>&lt; sectr &gt;</b>	Section row	Begins entry of a new section in the Table of Contents. The entry consists of the section number, the section title, and the page number on which it falls.
<b>&lt; sparar &gt;</b>	Section paragraph row	Begins entry of a new primary paragraph in the Table of Contents. The entry consists of the primary paragraph number, the paragraph title, and the page number on which it falls.
<b>&lt; appr &gt;</b>	Appendix row	Begins entry of a new appendix in the Table of Contents. The entry consists of the appendix number, the appendix title, and the page number on which it falls.
<b>&lt; aparar &gt;</b>	Appendix paragraph row	Begins entry of a new appendix paragraph in the Table of Contents. The entry consists of the appendix paragraph number, the paragraph title, and the page number on which it falls.
<b>&lt; glossr &gt;</b>	Glossary row	Begins entry of a glossary in the Table of Contents. The entry consists of the glossary title and the page number on which it falls.
<b>&lt; indexr &gt;</b>	Index row	Begins entry of an Index in the Table of Contents. The entry consists of the Index title and the page number on which it falls.
<b>&lt;/contents&gt;</b>	End table of contents	Ends the Table of Contents page.
<b>&lt; iluslist &gt;</b>	List of illustrations	Begins the List of Illustrations page. Centers the page title, "LIST OF ILLUSTRATIONS".
<b>&lt; sfigr &gt;</b>	Figure row	Begins a new entry in the List of Illustrations. The entry consists of the figure number, the figure title, and the page number on which it falls.
<b>&lt; afigr &gt;</b>	Appendix figure row	Begins a new entry in the List of Illustrations. The entry consists of the appendix figure number, the title, and the appendix page number on which it falls.
<b>&lt; foldr &gt;</b>	Foldout figure row	Begins a new entry in the List of Illustrations. The entry consists of the foldout figure number, the title, and the foldout page number on which it falls.
<b>&lt;/iluslist&gt;</b>	End List of Illustrations	Ends the List of Illustrations page.

TAG	ELEMENT	DESCRIPTION
<tablist>	List of Tables	Begins the List of Tables page. Centers the page title, "LIST OF TABLES".
<stabr>	Table row	Begins a new entry in the List of Tables. The entry consists of the table number, the table title, and the page number on which it falls.
<atabr>	Appendix table row	Begins a new entry in the List of Tables. The entry consists of the appendix table number, the title, and the appendix page number on which it falls.
</tablist>	End List of Tables	Ends the List of Tables page
<ptnum>	Part number	Delimits the part number and insert part number (separated by a period ".").
<chapnum>	Chapter number	Delimits the chapter number and insert chapter number (separated by a period ".").
<sectnum>	Section number	Delimits the section number and insert section number (separated by a period ".").
<h0num>	Paragraph number	Delimits the paragraph number and insert paragraph number (separated by a period ".").
<name>	Paragraph heading	Delimits the paragraph head.
<folio>	Page number	Delimits the page number.
<appnum>	Appendix number	Delimits the appendix number and insert appendix number (separated by a period ".").
<fignum>	Figure number	Delimits the figure number and insert figure number (separated by a period ".").
<tabnum>	Table number	Delimits the table number and insert table number (separated by a period ".").

### Descriptions of Tags for SAFETY SUMMARY

TAG	ELEMENT	DESCRIPTION
<b>&lt;safesum&gt;</b>	Begin safety summary	Begins the safety summary page on the next page of the document. Sets the footing (in lower-case roman numerals). Centers the page title, "SAFETY SUMMARY".
<b>&lt;para security = x&gt;</b>	Paragraph	<p>Sets the operator-entered paragraph of text with no number and no indent.</p> <p><b>NOTE:</b> The &lt;para&gt; tag may be followed by a paragraph title. This title is ended, and the actual text of the paragraph begun, with a backslash character. If there is no title for the paragraph, the tag should be followed immediately with a backslash.</p> <p style="text-align: center;"><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the paragraph.</p>
<b>&lt;warning security = x number = x type = x&gt;</b>	Begin warning	<p>Sets the warning head in a double box and keeps the head with the text to follow. The warning head may be followed with a paragraph or a list.</p> <p style="text-align: center;"><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the warning.</p> <p><b>Number:</b> "N" (no) or "Y" (yes). Default = "N". Optional numeric identification of the warning for reference purposes.</p> <p><b>Type:</b> "V" (vital) or "N" (non-vital). Default = "N". Specifies whether warning is vital or not. All vital warnings are extracted to appear on the warning page.</p>
<b>&lt;/warning&gt;</b>	End warning	Ends warning.
<b>&lt;caution security = x number = x&gt;</b>	Begin caution	<p>Sets the caution heading with a single box and keeps the head with the text to follow. The caution head may be followed with a paragraph or a list.</p> <p style="text-align: center;"><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the caution.</p> <p><b>Number:</b> "N" (no) or "Y" (yes). Default = "N". Optional numeric identification of the caution for reference purposes.</p>
<b>&lt;/caution&gt;</b>	End caution	Ends caution.

TAG	ELEMENT	DESCRIPTION
<b>&lt;note security = x number = x&gt;</b>	Begin note	<p>Sets the note head in bold upper-case and keeps the head with the text to follow. The note head may be followed with a paragraph or a list.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the note.</p> <p><b>Number:</b> "N" (no) or "Y" (yes). Default = "N". Optional numeric identification of the note for reference purposes.</p>
<b>&lt;/note&gt;</b>	End note	Ends note.
<b>&lt;list type = x&gt;</b>	Begin list	<p>Begins an operator-entered list.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Type:</b> "B" (bulleted list) or "N" (numerical list). Default = "B". Specifies the type of list contained within the text.</p>
<b>&lt;item&gt;</b>	List item	Begins a list item. This tag must follow the <list> tag, as it begins the current operator-entered item and ends the previous item.
<b>&lt;/list&gt;</b>	End list	Ends the last item of an operator-entered list as well as ends the list.
<b>&lt;/safesum&gt;</b>	End safety summary	Ends the safety summary page.

**Descriptions of Tags for  
T.O. BODY**

TAG	ELEMENT	DESCRIPTION
<body>	Begin body of document	Ends the front matter and begins the body of the document. Defines the heading and footing for the body of the entire document.
<part status = x change = x id = x>	Begin part	<p>Begins a new part of the document on the next odd page. Centers the word "PART", the automatically generated part number spelled out in upper-case letters, and the part title. The part title will be stored so that it will be set every time a new chapter or section begins, until such time the operator enters a new part with this command.</p> <p style="text-align: center;"><b>Optional Attribute(s)</b></p> <p><b>Status:</b> "N" (normal), "I" (inserted), "D" (deleted), or "O\x\" (override). Default = "N". Specifies the current status of the Part. The following results may be produced:</p> <ul style="list-style-type: none"> <li><b>N:</b> the part will simply be numbered and set.</li> <li><b>I:</b> the inserted part is automatically numbered as an insert.</li> <li><b>D:</b> the standard "deleted" note is set and the part number is extracted for a deletion entry in the Table of Contents.</li> <li><b>O:</b> the part number is replaced with the number that the operator assigns by placing it after the "O" between backslash characters; any string of characters is legal.</li> </ul> <p><b>Change:</b> Any number. Default = 0. Specifies the current change level of the Part. This tag works in conjunction with the status attribute; specifically, when the value of the status attribute is deleted ("D"). If "D" is specified for the status and a change bar is to set, the operator must specify the change attribute equal to the current level of change. A change bar will set around the Part Deleted notice when the specified level of change is current for the entire document.</p> <p><b>Id:</b> Unique identification assigned to this Part for reference purposes.</p>

TAG	ELEMENT	DESCRIPTION
<b>&lt;chapter</b> <b>status = x</b> <b>change = x</b> <b>id = x &gt;</b>	Begin chapter	<p>Begins a new chapter of the document on the next odd page. A check is made to determine if a part is the primary document level and sets the part number and title accordingly. Centers the word "CHAPTER", the automatically generated chapter number in arabic numerals, and the chapter title. The chapter title will be stored so that it will be set every time a new section begins, if necessary, until such time the operator enters a new chapter with this command.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Status:</b> "N" (normal), "I" (inserted), "D" (deleted), or "O\x\" (override). Default = "N".  Specifies the current status of the chapter. (See PART tag above for explanation of values.)</p> <p><b>Change:</b> Any number. Default = 0.  Specifies the current change level of the Chapter. This tag will set a change bar, when the status attribute is specified as deleted ("D"). See the Part tag above for further explanation.</p> <p><b>Id:</b> Unique identification assigned to this Chapter for reference purposes.</p>
<b>&lt;section</b> <b>status = x</b> <b>short = x</b> <b>change = x</b> <b>id = x &gt;</b>	Begin section	<p>Begins a new section of the document on the next odd page. A check is made to determine if a chapter and/or a part is the primary document level, and sets the chapter and/or part number and title accordingly. Centers the word "SECTION", the automatically generated section number in roman numerals, and the section title.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Status:</b> "N" (normal), "I" (inserted), "D" (deleted), or "O\x\" (override). Default = "N".  Specifies the current status of the section. (See PART tag above for explanation of values.)</p> <p><b>Change:</b> Any number. Default = 0.  Specifies the current change level of the section. This tag will set a change bar, when the status attribute is specified as deleted ("D"). See the Part tag above for further explanation.</p> <p><b>Short:</b> "Y" (yes) or "N" (no). Default = "N".  Specifies that the current section is a short section and can set on the same page as the previous section. This attribute allows multiple short sections to be set on the same page.</p> <p><b>Id:</b> Unique identification assigned to this Section for reference purposes.</p>

TAG	ELEMENT	DESCRIPTION
<p> <b>&lt; p0</b>  <b>&lt; p1</b>  <b>&lt; p2</b>  <b>&lt; p3</b>  <b>&lt; p4</b>  <b>security = x</b>  <b>status = x</b>  <b>change = x</b>  <b>id = x &gt;</b> </p>	<p>           Primary paragraph            1st subordinate paragraph            2nd subordinate paragraph            3rd subordinate paragraph            4th subordinate paragraph         </p>	<p>           Automatically numbers, indents when appropriate, and sets the operator-entered paragraph. The tag specifies the level of the paragraph.         </p> <p> <b>NOTE:</b> The &lt;p0&gt; through &lt;p4&gt; tags may be followed by a paragraph title. This title is ended, and the actual text of the paragraph begun, with a backslash character. If there is no title for the paragraph, the tag should be followed immediately with a backslash.         </p> <p> <u><b>Optional Attribute(s)</b></u> </p> <p> <b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has previously been specified, it defaults to "U". Specifies the classification of the paragraph.         </p> <p> <b>Status:</b> "N" (normal), "I" (inserted), "D" (deleted), or "O\x" (override). Default = "N". Specifies the current status of the paragraph. (See PART tag above for explanation of values.)         </p> <p> <b>Change:</b> Any number. Default = 0. Specifies the current change level of the paragraph. This tag will set a change bar, when the status attribute is specified as deleted ("D"). See the Part tag above for further explanation.         </p> <p> <b>Id:</b> Unique identification assigned to this paragraph for reference purposes.         </p>
<p> <b>&lt; s0</b>  <b>&lt; s1</b>  <b>&lt; s2</b>  <b>&lt; s3</b>  <b>&lt; s4</b>  <b>security = x</b>  <b>status = x</b>  <b>change = x</b>  <b>id = x &gt;</b> </p>	<p>           Primary procedural step            1st subord. procedural step            2nd subord. procedural step            3rd subord. procedural step            4th subord. procedural step         </p>	<p>           Automatically numbers and sets the operator-entered procedural step of the level specified in the tag.         </p> <p> <u><b>Optional Attribute(s)</b></u> </p> <p> <b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has previously been specified, it defaults to "U". Specifies the classification of the procedural step.         </p> <p> <b>Status:</b> "N" (normal), "I" (inserted), "D" (deleted), or "O\x" (override). Default = "N". Specifies the current status of the procedural step. (See PART tag above for explanation of values.)         </p> <p> <b>Change:</b> Any number. Default = 0. Specifies the current change level of the procedural step. This tag will set a change bar, when the status attribute is specified as deleted ("D"). See the Part tag above for further explanation.         </p> <p> <b>Id:</b> Unique identification assigned to this procedural step for reference purposes.         </p>

TAG	ELEMENT	DESCRIPTION
<b>&lt;para security = x&gt;</b>	Paragraph	<p>Sets the operator-entered paragraph text with no number and no indent (full measure).</p> <p><b>NOTE:</b> The &lt;para&gt; tag may be followed by a paragraph title. This title is ended, and the actual text of the paragraph begun, with a backslash character. If there is no title for the paragraph, the tag should be followed immediately with a backslash.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the paragraph.</p>

TAG	ELEMENT	DESCRIPTION
<b>&lt;figure</b> <b>width = x</b> <b>depth = x</b> <b>graphic = x</b> <b>location = x</b> <b>security = x</b> <b>status = x</b> <b>change = x</b> <b>id = x</b> <b>data = x</b> <b>float = x</b> <b>rotation = x &gt;</b>	Begin figure	<p>Begins a figure entry.</p> <p><b>Required Attribute(s)</b></p> <p><b>Width:</b> any space expression. This attribute is <b>required</b> and, therefore, has <b>no default</b>. Specifies the width of the figure. The maximum width for a figure to be set full measure on the page is 42 picas.</p> <p><b>Depth:</b> any space expression. This attribute is <b>required</b> and, therefore, has <b>no default</b>. Specifies the depth of the figure. The maximum depth for a figure to be set on a page is 51 picas.</p> <p><b>Graphic:</b> "N" (no) or "Y" (yes). Default = "Y". Determines whether the graphic for the figure is set (Y) or just the leading specified in the width and depth attributes is set (N).</p> <p><b>Location:</b> any file name. No default. Specifies the name of the file that contains the graphic to be merged into this figure space.</p> <p><b>NOTE:</b> The "location" attribute must be specified for figure <b>unless</b> graphic = n.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has previously been specified, it defaults to "U". Specifies the classification of the figure.</p> <p><b>Status:</b> "N" (normal), "I" (inserted), "D" (deleted), "O\X" (overridden) or "R" (repeated). Default = "N". Specifies the current status of the figure.</p> <p><b>Change:</b> Any number. Default = 0. Specifies the current change level of the figure. This tag will set a change bar, when the status attribute is specified as deleted ("D"). See the Part tag above for further explanation.</p> <p><b>Id:</b> Unique identification assigned to this figure for reference purposes.</p> <p><b>Data:</b> "iges", "cgm", or "fax". Default = "iges". Specifies the type of data contained in the figure.</p> <p><b>Float:</b> "N" (no) or "Y" (yes). Default = "N". Determines whether the figure is set immediately (N) or floats in association with the text reference (Y).</p> <p><b>Rotation:</b> "0", "90", "180", or "270". Default = "0". Specifies the degree to which the current graphic is to be rotated when set.</p>
<b>&lt;title</b> <b>security = x &gt;</b>	Figure title	<p>Sets the title of the current figure.</p> <p><b>NOTE:</b> The title of a figure may have a security classification different than the figure itself; therefore, the title may have its own security attribute.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has previously been specified, it defaults to "U". Specifies the classification of the figure title.</p>

TAG	ELEMENT	DESCRIPTION
<b>&lt;legend&gt;</b>	Begin figure legend	Sets the figure legend. The legend is text that can float with a figure. It can contain a list, un-numbered paragraph (<para>), table, a single-column symbol section (<symsect>), or any combination of these elements.
<b>&lt;/legend&gt;</b>	End figure legend	Ends the figure legend.
<b>&lt;/figure&gt;</b>	End figure	Ends the figure element.
<b>&lt;warning security = x number = x type = x&gt;</b>	Begin warning	<p>Sets the warning head in a double box above the text to follow. The warning head is followed by a paragraph or a list.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the warning.</p> <p><b>Number:</b> "N" (no) or "Y" (yes). Default = "N". Optional numeric identification of the warning for reference purposes.</p> <p><b>Type:</b> "V" (vital) or "N" (non-vital). Default = "N". Specifies whether warning is vital or not. All vital warnings are extracted to appear on the warning page.</p>
<b>&lt;/warning&gt;</b>	End warning	Ends warning.
<b>&lt;caution security = x number = x&gt;</b>	Begin caution	<p>Sets the caution heading with a single box above the text to follow. The caution head is followed by a paragraph or a list.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the caution.</p> <p><b>Number:</b> "N" (no) or "Y" (yes). Default = "N". Optional numeric identification of the caution for reference purposes.</p>
<b>&lt;/caution&gt;</b>	End caution	Ends caution.
<b>&lt;note security = x number = x&gt;</b>	Begin note	<p>Sets the note head in bold upper-case above the text to follow. The note head is followed by a paragraph or a list.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the note.</p> <p><b>Number:</b> "N" (no) or "Y" (yes). Default = "N". Optional numeric identification of the note for reference purposes.</p>
<b>&lt;/note&gt;</b>	End note	Ends note.
<b>&lt;list type = x&gt;</b>	Begin list	<p>Begins an operator-entered list.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Type:</b> "B" (bulleted list) or "N" (numerical list). Default = "B". Specifies the type of list contained within the text.</p>
<b>&lt;item&gt;</b>	List item	Begins a list item. This tag must follow the <list> tag, as it begins the current operator-entered item and ends the previous item.
<b>&lt;/list&gt;</b>	End list	Ends the last item of an operator-entered list as well as ends the list.

TAG	ELEMENT	DESCRIPTION
<b>&lt;ftnote over = x box = x&gt;</b>	Begin footnote	<p>Begins a footnote. By default, footnotes are referenced with superior numerals and are numbered sequentially. This can be overridden with the "over" attribute described below.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Over:</b> "N" (numerical referencing as described above) or "Y" (no numerical referencing). Default = "N".</p> <p>Specifies how footnotes will be referenced. If some other reference character, such as an asterisk is desired, the operator must specify "over=y" and then manually enter this character in the text and after the &lt;ftnote&gt; tag. If no symbol or superior number is desired, then the operator must indicate "over=y", without using another character.</p> <p><b>Box:</b> "N" (no) or "Y" (yes). Default = "N".</p> <p>Specifies whether or not the footnote should be enclosed in a box.</p>
<b>&lt;/ftnote&gt;</b>	End footnote	Ends the footnote.
<b>&lt;sup type = x&gt;</b>	Superior character	<p>Sets the character(s) specified in the type attribute superior to the current text by reducing the point size and raising the baseline.</p> <p><b>Required Attribute(s)</b></p> <p><b>Type:</b> any number or letter. <b>No default.</b></p> <p>Indicates the character(s) to be set superior. Multiple characters may be specified.</p>
<b>&lt;sub type = x&gt;</b>	Subordinate character	<p>Sets the character(s) specified in the type attribute subordinate to the current text by reducing the point size and lowering the baseline.</p> <p><b>Required Attribute(s)</b></p> <p><b>Type:</b> any number or letter. <b>No default.</b></p> <p>Indicates the character(s) to be set subordinate. Multiple characters may be specified.</p>
<b>&lt;flag type = x&gt;</b>	Flag character	<p>Sets the flag character specified in the type attribute in text.</p> <p><b>Required Attribute(s)</b></p> <p><b>Type:</b> any available flag note character. <b>No default.</b></p> <p>Indicates the flag note character to be set.</p>
<b>&lt;emph type = x&gt;</b>	Begin emphasis	<p>Emphasizes the text that follows this tag; the type of the emphasis must be specified.</p> <p><b>Required Attribute(s)</b></p> <p><b>Type:</b> "Q" (quotes), "B" (bold type), "I" (italic type), "S" (strike through), "U" (underscore), "X" (box). Default = "Q".</p> <p>Indicates the type of emphasis to be used.</p>
<b>&lt;/emph&gt;</b>	End emphasis	Ends emphasizing the text and returns to the previous type style.
<b>&lt;chgbar change = x&gt;</b>	Begin change bar	<p>Begins a change bar at the beginning of a changed area of text.</p> <p><b>Required Attribute(s)</b></p> <p><b>Change:</b> any number. Default = 0.</p> <p>Indicates the level of the change.</p>
<b>&lt;/chgbar&gt;</b>	End change bar	Ends the change bar
<b>&lt;emerg&gt;</b>	Begin emergency procedure border	<p>Specifies that the emergency procedure border should be set around the current page and subsequent pages.</p> <p><b>NOTE:</b> It is suggested that this tag be specified before a &lt;section&gt; of text begins.</p>

TAG	ELEMENT	DESCRIPTION
<b>&lt;/emerg&gt;</b>	End emergency procedure border	Ends the emergency procedure border.
<b>&lt;symbol width = x depth = x location = x graphic = x data = x rotation = x&gt;</b>	Begin symbol	<p>Sets the specified symbol at the point the symbol is called in text.</p> <p><b>Required Attribute(s)</b></p> <p><b>Width:</b> any space expression. This attribute is <b>required</b> and, therefore, has <b>no default</b>. Specifies the width of the symbol.</p> <p><b>Depth:</b> any space expression. This attribute is <b>required</b> and, therefore, has <b>no default</b>. Specifies the depth of the symbol.</p> <p><b>Graphic:</b> "N" (no) or "Y" (yes). Default = "Y". Determines whether the graphic for the symbol is set (Y) or just the leading specified in the width and depth attributes is set (N).</p> <p><b>Location:</b> any file name. No default. Specifies the name of the file that contains the graphic to be merged into this symbol space.</p> <p><b>NOTE:</b> The "location" attribute must be specified for figure <b>unless</b> graphic = n.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Data:</b> "iges", "cgm", or "fax". Default = "iges". Specifies the type of data contained in the figure.</p> <p><b>Rotation:</b> "0", "90", "180", or "270". Default = "0". Specifies the degree to which the current graphic is to be rotated when set.</p>
<b>&lt;idxf ref1 = x ref2 = x ref3 = x ref4 = x&gt;</b>	Begin index extract	<p>Begins index extract; up to five levels deep may be extracted. Primary level is assumed unless the "ref" attribute is specified.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Ref1-4:</b> Exact wording of level above current term. Indicates that a level two through five extract is desired, and specifies the primary reference term to which it is attached.</p>
<b>&lt;/idxf&gt;</b>	End index extract	Ends the index extract for the affected area of text.
<b>&lt;tono&gt;</b>	T.O. number	Begins T.O. number entry.
<b>&lt;/tono&gt;</b>	End T.O. number	Ends T.O. number entry.
<b>&lt;tabref refid = x&gt;</b>	Table reference	<p>Begins table reference entry in text. Sets the text "(See table ...)".</p> <p><b>Optional Attribute(s)</b></p> <p><b>Refid:</b> Unique id of table to which &lt;tabref&gt; is referring.</p>
<b>&lt;figref refid = x sheet = x&gt;</b>	Figure reference	<p>Begins figure reference entry in text. Sets the text "(See figure ...)".</p> <p><b>Optional Attribute(s)</b></p> <p><b>Refid:</b> Unique id of figure to which &lt;figref&gt; is referring.</p> <p><b>Sheet:</b> Specifies the sheet number of the referenced figure.</p>
<b>&lt;pararef refid = x&gt;</b>	Paragraph reference	<p>Begins paragraph reference entry in text. Sets the text "(See paragraph ...)".</p> <p><b>Optional Attribute(s)</b></p> <p><b>Refid:</b> Unique id of paragraph to which &lt;pararef&gt; is referring.</p>

TAG	ELEMENT	DESCRIPTION
<b>&lt;secref refid = x&gt;</b>	Section reference	Begins section reference entry in text. Sets the text "(See section ...)".  <b>Optional Attribute(s)</b> <b>Refid:</b> Unique id of section to which <secref> is referring.
<b>&lt;chapref refid = x&gt;</b>	Chapter reference	Begins chapter reference entry in text. Sets the text "(See chapter ...)".  <b>Optional Attribute(s)</b> <b>Refid:</b> Unique id of chapter to which <chapref> is referring.
<b>&lt;partref refid = x&gt;</b>	Part reference	Begins part reference entry in text. Sets the text "(See part ...)".  <b>Optional Attribute(s)</b> <b>Refid:</b> Unique id of part to which <partref> is referring.
<b>&lt;appref refid = x&gt;</b>	Appendix reference	Begins appendix reference entry in text. Sets the text "(See appendix ...)".  <b>Optional Attribute(s)</b> <b>Refid:</b> Unique id of appendix to which <appref> is referring.
<b>&lt;volref refid = x&gt;</b>	Volume reference	Begins the volume reference entry in text. Sets the text "(See volume ...)".  <b>Optional Attribute(s)</b> <b>Refid:</b> Unique id of volume to which <volref> is referring.
<b>&lt;/section&gt;</b>	End section	Ends the current section.
<b>&lt;/chapter&gt;</b>	End chapter	Ends the current chapter.
<b>&lt;/part&gt;</b>	End part	Ends the current part.

## Descriptions of Tags for TABLES

TAG	ELEMENT	DESCRIPTION
<b>&lt;table</b> <b>col = x</b> <b>type = x</b> <b>sec = x</b> <b>status = x</b> <b>change = x</b> <b>content = x</b> <b>id = x &gt;</b>	Table beginning	<p>Begins a table entry in the body of the T.O. Tables may be site standards or be defined by the user. Following the table call, system-specific processing information may be used to modify the form of a definable table.</p> <p style="text-align: center;"><b><u>Required Attribute(s)</u></b></p> <p><b>Col:</b> Number. Specifies the number of columns in the table.</p> <p><b>Type:</b> "def" (definable) or standard name. Specifies whether the table is definable (def) or a standard that has previously been defined and named.</p> <p style="text-align: center;"><b><u>Optional Attribute(s)</u></b></p> <p><b>Sec:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Specifies the classification of the table. Default = previous security classification; if no security level has previously been specified, defaults to "U".</p> <p><b>Status:</b> "N" (normal), "I" (inserted), "D" (deleted), or "O\x" (override). Specifies the current status of the table. Default = "N".</p> <p><b>Change:</b> Any number. Specifies the current change level of the table. Default = "0".</p> <p><b>Content:</b> "F" (full), "A" (abbreviated). Specifies whether the table stops the current text columnization and returns to the full page width, or whether the table flows in the text columnization. Default = "F".</p> <p><b>Id:</b> Unique identification assigned to this table for reference purposes.</p>
<b>&lt;title</b> <b>security = x &gt;</b>	Table title	<p>Sets the title of the current table.</p> <p><b>NOTE:</b> The title of a table may have a security classification different than the table itself; therefore, the title may have its own security attribute.</p> <p style="text-align: center;"><b><u>Optional Attribute(s)</u></b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has previously been specified, it defaults to "U". Specifies the classification of the table title.</p>
<b>&lt;/title&gt;</b>	End table title	Ends the title entry of a table
<b>&lt;thead&gt;</b>	Table heading	Begins the operator-entered heading entry of a table.
<b>&lt;r&gt;</b>	Table head row	Begins a row in the table head. Entries within each row are delimited by a backslash.
<b>&lt;/thead&gt;</b>	End table heading	Ends the heading entry of a table.
<b>&lt;tbody&gt;</b>	Table body	Begins the table body entry.

TAG	ELEMENT	DESCRIPTION
<r>	Table row	Begins a row in the table body. Entries within each row are delimited by a backslash.
</tbody>	End table body	Ends the table body entry.
</table>	Table ending	Ends the table entry.
<chart col = x type = x sec = x status = x change = x content = x id = x>	Begin chart	<p>Begins a chart entry. In the body of the T.O., charts vary widely; they are similar to tables and hence are user-definable. A chart is really a table with a figure title. Following the chart call, system-specific processing information may be used to modify the form. The chart is assigned a figure number and title which subsequently appear in the List of Illustrations.</p> <p><b>Required Attribute(s)</b></p> <p><b>Col:</b> number. This attribute has <b>no default</b>. Specifies the number of columns in the chart.</p> <p><b>Type:</b> "def" (definable) or standard name. Since this attribute is required, there is no default. Specifies whether the chart is definable or a standard that has previously been defined and named.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Sec:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has previously been specified, it defaults to "U". Specifies the classification of the chart.</p> <p><b>Status:</b> "N" (normal), "I" (inserted), "D" (deleted), or "O\X" (override). Default = "N". Specifies the current status of the chart. (See PART tag above for explanation of values.)</p> <p><b>Change:</b> Any number. Default = 0. Specifies the current change level of the chart.</p> <p><b>Content:</b> "F" (full) 1 column full measure, or "A" (abbreviated) current columnization. Default = "F".</p> <p><b>Id:</b> Unique identification assigned to this chart for reference purposes.</p>
<title security = x>	Chart title	<p>Sets the title of the current chart.</p> <p><b>NOTE:</b> The title of a chart may have a security classification different than the chart itself; therefore, the title may have its own security attribute.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has previously been specified, it defaults to "U". Specifies the classification of the chart title.</p>
</title>	End chart title	Ends the chart title.
<chthd>	Chart heading	Begins the operator-entered heading entry of a table
<r>	Chart heading row	Each row of the chart heading must begin with this tag. Entries within each row are delimited by a backslash.
</chthd>	End chart heading	Ends the heading entry of a chart.
<chtbdy>	Chart body	Begins the chart body entry.

TAG	ELEMENT	DESCRIPTION
<r>	Chart row	Begins a row in the chart body. Entries within each row are delimited by a backslash.
</chtbody>	End chart body	Ends the chart body entry.
</chart>	Chart ending	Ends the chart entry.
<ftnote over = x box = x>	Begin footnote	<p>Begins a footnote. By default, footnotes are referenced with superior numerals and are numbered sequentially. This can be overridden with the "over" attribute described below.</p> <p>This tag should directly precede the &lt;/tbody&gt; and &lt;/table&gt; tags. Following this tag, the operator should enter the text of the table footnote.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Over:</b> "N" (numerical referencing as described above) or "Y" (no numerical referencing). Default = "N". Specifies how footnotes will be referenced. This attribute will <b>always</b> be used with tables.</p> <p>If some other reference character, such as an asterisk is desired, the operator must specify "over=y" and then manually enter this character in the text and after the &lt;ftnote&gt; tag. If no symbol or superior number is desired, then the operator must indicate "over=y", without using another character.</p> <p><b>Box:</b> "N" (no) or "Y" (yes). Default = "N". Specifies whether or not the footnote should be enclosed in a box.</p> <p><b>NOTE:</b> If one footnote on a page is boxed, all footnotes on that page will be boxed.</p>
</ftnote>	End table "footnote"	Ends a "footnote" at the end of a table.

### Descriptions of Tags for ILLUSTRATED PARTS BREAKDOWN (IPB)

TAG	ELEMENT	DESCRIPTION
<b>&lt;mpl column = x* security = x form = x&gt;</b>	Maintenance Parts List table	<p>This tag calls the MPL table, sets the heads, and generates the rules. Since the heading is automatically set by this call, the operator need only enter the call &lt;mplbody&gt; to begin the body of the table.</p> <p style="text-align: center;"><b>Required Attribute(s)</b></p> <p><b>Column:</b> any number. This attribute is <b>required</b> and, therefore, has <b>no default</b>. The number of columns in a table is specified in conjunction with the table form attribute. Entry of "column = 7" is required for the format to generate the standard 7-column table (form = 0, the default). If alternate MPL tables are defined, this number may vary depending on the number of columns specified for that form.</p> <p style="text-align: center;"><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the MPL table.</p> <p><b>Form:</b> any number from 1-100, or letters (a-z, up to 3 characters), or alpha-numeric combination. Default = "0" (which designates the standard form). Sites may eventually define more than one standard MPL table; each of these must be assigned a number that can be specified in this form attribute. If the table form specified has other than 7 columns in it, the column number must be made to agree with the requested form.</p>
<b>&lt;mplbody&gt;</b>	Begin MPL body	Begins the body of the MPL.
<b>&lt;mplr&gt;</b>	MPL row	Begins each new row of data across an MPL table. Following this <mplr> call, the appropriate column tag must be called, then the text entry.
<b>&lt;fin&gt;</b>	Column entry	Sets the "Figure & Index Number" entry in the standard MPL table.
<b>&lt;partno&gt;</b>	Column entry	Sets the "Part Number" entry in the standard MPL table.
<b>&lt;fscm&gt;</b>	Column entry	Sets the "FSCM" entry in the standard MPL table.
<b>&lt;desc&gt;</b>	Column entry	Sets the "Description" entry in the standard MPL table.
<b>&lt;unit&gt;</b>	Column entry	Sets the "Units Per Assy" entry in the standard MPL table.
<b>&lt;uoc&gt;</b>	Column entry	Sets the "Usable On Code" entry in the standard MPL table.
<b>&lt;smr&gt;</b>	Column entry	Sets the "SMR Code" entry in the standard MPL table.
<b>&lt;/mplbody&gt;</b>	End MPL body	Ends the body of the MPL table.
<b>&lt;/mpl&gt;</b>	End MPL table	Ends the MPL table.

\* This attribute is **required**, not optional.

TAG	ELEMENT	DESCRIPTION
<b>&lt;ni</b> <b>column = x*</b> <b>security = x</b> <b>form = x&gt;</b>	Numerical Index table	<p>This call defines the NI table, sets the standard heads, and generates the rules. Since the heading is automatically set by this call, the operator need only enter the call &lt;nibody&gt; to begin the body of the table.</p> <p><b>Required Attribute(s)</b></p> <p><b>Column:</b> any number. This attribute is <b>required</b> and, therefore, has <b>no default</b>. The number of columns in a table is specified in conjunction with the table form attribute. Entry of "column = 4" is required for the format to generate the standard 4-column table (form = 0, the default). If alternate NI tables are defined, this number may vary depending on the number of columns specified for that form.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the NI table.</p> <p><b>Form:</b> any number from 1-100, or letters (a-z, up to 3 characters), or alpha-numeric combination. Default = "0" (which designates the standard form).</p> <p>Sites may eventually define more than one standard NI table; each of these must be assigned a number or letter that can be specified in this form attribute. If the table form specified has other than 4 columns in it, the column number must be made to agree with the requested form.</p>
<b>&lt;nibody&gt;</b>	NI body	Begins the body of the NI table.
<b>&lt;nir&gt;</b>	NI row	Begins each new row of data across an NI table. Following this <nir> call, the appropriate column tag must be called, then the text entry.
<b>&lt;partno&gt;</b>	Column entry	Sets the "Part Number" entry in the standard NI table.
<b>&lt;fin&gt;</b>	Column entry	Sets the "Figure & Index Number" entry in the standard NI table.
<b>&lt;qty&gt;</b>	Column entry	Sets the "Qty. Per End Item" entry in the standard NI table.
<b>&lt;smr&gt;</b>	Column entry	Sets the "SMR Code" entry in the standard NI table.
<b>&lt;/nibody&gt;</b>	End NI body	Ends the body of the NI table.
<b>&lt;/ni&gt;</b>	Ends NI table	Ends the NI table.

\* This attribute is **required**, not optional.

TAG	ELEMENT	DESCRIPTION
<b>&lt;rdi column = x* security = x form = x&gt;</b>	Reference Designation Index table	<p>This tag defines the RDI table, sets the standard heads, and generates the rules. Since the heading is automatically set by this call, the operator need only enter the call &lt;rdibody&gt; to begin the body of the table.</p> <p><b>Required Attribute(s)</b></p> <p><b>Column:</b> any number. This attribute is <b>required</b> and, therefore, has <b>no default</b>. The number of columns in a table is specified in conjunction with the table form attribute. Entry of "column=2" is required for the format to generate the standard 2-column table (form=0, the default). If alternate RDI tables are defined, this number may vary depending on the number of columns specified for that form.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the RDI table.</p> <p><b>Form:</b> any number from 1-100, or letters (a-z, up to 3 characters), or alpha-numeric combination. Default = "0" (which designates the standard form). Sites may eventually define more than one standard RDI table; each of these must be assigned a number or letter that can be specified in this form attribute. If the table form specified has other than 2 columns in it, the column number must be made to agree with the requested form.</p>
<b>&lt;rdibody&gt;</b>	RDI body	Begins the body of the RDI table.
<b>&lt;rdir&gt;</b>	RDI row	Begins each new row of data across an RDI table. Following this <rdir> call, the appropriate column tag must be called, then the text entry.
<b>&lt;fin&gt;</b>	Column entry	Sets the "Figure & Index No." entry in the standard RDI table.
<b>&lt;rdino&gt;</b>	Column entry	Sets the Reference Designation Index entry in the standard RDI table.
<b>&lt;/rdibody&gt;</b>	End RDI body	Ends the body of the RDI table.
<b>&lt;/rdi&gt;</b>	End RDI table	Ends the RDI table.

\* This attribute is **required**, not optional

### Descriptions of Tags for DIFFERENCE DATA SHEET

TAG	ELEMENT	DESCRIPTION
<b>&lt; ddsheet security = x &gt;</b>	Begin difference data sheet	<p>Begins the difference data sheet on the next page of the document. Sets up the footing (arabic numerals). Centers the words "DIFFERENCE DATA SHEET" and sets the line rule.</p> <p style="text-align: center;"><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the Difference Data Sheet.</p>
<b>&lt; nomen security = x &gt;</b>	Nomenclature of equipment	<p>Sets the operator-entered equipment nomenclature beneath the page title and rule.</p> <p style="text-align: center;"><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the nomenclature.</p>
<b>&lt; partno &gt; &lt; modno &gt; &lt; serno &gt; &lt; type &gt;</b>	Part number Model number Serial number Type	<p>Sets the appropriate heading; "PART NO.", "MODEL NO.", "SERIAL NO.", or "TYPE"; followed by the operator-entered number beneath the page title and rule.</p>
<b>&lt; title &gt;</b>	Data sheet title	<p>Sets the line rule beneath the nomenclature and part number. Sets and centers the words "THE INSTRUCTIONS CONTAINED IN PRECEDING SECTIONS OF THIS TECHNICAL MANUAL APPLY EXCEPT FOR THE DIFFERENCES LISTED IN THIS DATA SHEET", beneath the rule.</p>
<b>&lt; para security = x &gt;</b>	Paragraph	<p>Sets the operator-entered paragraph text with no number and no indent (full measure).</p> <p><b>NOTE:</b> The &lt; para &gt; tag may be followed by a paragraph title. This title is ended, and the actual text of the paragraph begun, with a backslash character. If there is no title for the paragraph, the tag should be followed immediately with a backslash.</p> <p style="text-align: center;"><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the paragraph.</p>
<b>&lt; /ddsheets &gt;</b>	End difference data sheet	Ends the difference data sheet.

**Descriptions of Tags for  
APPENDIX PAGE**

TAG	ELEMENT	DESCRIPTION
<rear>	Begin rear matter	Begins rear matter which may consist of appendices, glossary, index and/or foldouts.
<appendix status = x change = x id = x>	Begin appendix	<p>Begins a new appendix of the document on the next odd page, leaving any intervening even page blank. Sets the footing (e.g., "A-1", "A-2"). Centers the word "APPENDIX", the automatically-generated appendix letter, and the operator-entered appendix title.</p> <p style="text-align: center;"><u>Optional Attribute(s)</u></p> <p><b>Status:</b> "N" (normal), "I" (inserted), "D" (deleted), or "O x\" (override). Default = "N". Specifies the current status of the appendix. The following results may be produced:</p> <p style="margin-left: 40px;"><b>N:</b> the appendix will simply be numbered and set. <b>I:</b> the inserted appendix is automatically numbered as an insert. <b>D:</b> the standard "Deleted" note is set and the appendix number is extracted for a deletion entry in the Table of Contents. <b>O:</b> the appendix number is replaced with the number that the operator assigns by placing it after the "O" between backslash characters; any string of characters is legal.</p> <p><b>Change:</b> Any number. Default = 0. Specifies the current change level of the appendix. This tag works in conjunction with the status attribute; specifically, when the value of the status attribute is deleted ("D"). If "D" is specified for the status and a change bar is to set, the operator must specify the change attribute equal to the current level of change. A change bar will set around the Appendix Deleted notice when the specified level of change is current for the entire document.</p> <p><b>Id:</b> Unique identification assigned to this appendix for reference purposes.</p> <p><b>NOTE:</b> All tags used in a T.O. body are valid in the appendix. Only new tags are described here; refer to <b>Description of Tags for T.O. BODY</b> for complete descriptions.</p>
</appendix>	End appendix	Ends the appendix page.

**Descriptions of Tags for  
GLOSSARY PAGE**

<b>TAG</b>	<b>ELEMENT</b>	<b>DESCRIPTION</b>
<b>&lt;glossary&gt;</b>	Begin glossary	Begins the glossary page on the next odd page of the document, leaving any intervening even page blank. Sets the footing ("GLOSSARY" plus arabic numerals). Centers the words "GLOSSARY" and "GLOSSARY - Continued" (for additional pages).
<b>&lt;glositem&gt;</b>	Glossary item	Begins a new item or entry that consists of a term and a definition. The glossary item term should follow the tag; a backslash inserts a hyphen and begins the definition of the term.  <b>NOTE:</b> The <glositem> tag sets the appropriate uppercase letter (ie. "A", "B") that begins each alphabetized section of the glossary.  Glossary items must be entered in alphabetical order.
<b>&lt;/glossary&gt;</b>	End Glossary	Ends the glossary page.

**Descriptions of Tags for  
INDEX PAGE**

TAG	ELEMENT	DESCRIPTION
<b>&lt;index&gt;</b>	Begin index	Begins the index on the next odd page, leaving any intervening even page blank. Sets the footing ("Index" plus arabic numerals). Centers the words "INDEX" and "INDEX - Continued" (for additional pages). Automatically sets the column headings "Subject" and "Paragraph, Figure, Table Number" in italic.
<b>&lt;item1&gt;</b>	First level entry	<p>Sets the operator-entered first level entry in the index. The entry consists of a term and optional page number(s). The page numbers are separated from the term by an @ symbol and are quadded right. If the entry has no folio, the @ symbol is not used. Leadering is automatically generated when a folio is set.</p> <p><b>NOTE:</b> The &lt;item1&gt; tag sets the appropriate upper-case letter (ie. "A", "B") that begins each alphabetized section of the index.</p> <p>This call is used only if the system is not capable of generating an automatic index.</p>
<b>&lt;item2&gt;</b> <b>&lt;item3&gt;</b> <b>&lt;item4&gt;</b> <b>&lt;item5&gt;</b>	Second level entry	<p>These calls indent and set the operator-entered second, third, fourth, and fifth level entries. Each entry consists of a term and optional page number(s). The page numbers are separated from the term by an @ symbol and are quadded right. If the entry has no folio, the @ symbol is not used. Leadering is automatically generated when a folio is set.</p> <p><b>NOTE:</b> These calls are used only if the system is not capable of generating an automatic index.</p>
<b>&lt;/index&gt;</b>	End index	Ends the index.

## Descriptions of Tags for FOLDOUTS

TAG	ELEMENT	DESCRIPTION
<b>&lt;foldout</b> <b>graphic = x</b> <b>location = x</b> <b>security = x</b> <b>status = x</b> <b>change = x</b> <b>id = x</b> <b>data = x</b> <b>rotation = x &gt;</b>	Begin figure foldout	<p>Begins a figure foldout entry. The width and depth of the foldout do not need to be specified since these are constant values; the width is always 51 picas and the depth is always 52 picas. Foldouts appear at the end of the manual.</p> <p style="text-align: center;"><b><u>Required Attribute(s)</u></b></p> <p><b>Graphic:</b> "N" (no) or "Y" (yes). Default = "Y". Determines whether the graphic for the figure foldout is set (Y) or just the leading specified in the width and depth attributes is set (N).</p> <p><b>Location:</b> any file name. No default. Specifies the name of the file that contains the graphic to be merged into this figure foldout space.</p> <p><b>NOTE:</b> The "location" attribute must be specified for figure <b>unless</b> graphic = n.</p> <p style="text-align: center;"><b><u>Optional Attribute(s)</u></b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has previously been specified, it defaults to "U". Specifies the classification of the figure foldout.</p> <p><b>Status:</b> "N" (normal), "I" (inserted), "D" (deleted), "O\x\" (overridden), or "R" (repeated). Default = "N". Specifies the current status of the figure foldout. (See PART tag above for explanation of the remaining values.)</p> <p><b>Change:</b> Any number. Default = 0. Specifies the current change level of the figure foldout. This tag will set a change bar, when the status attribute is specified as deleted ("D"). See the Part tag above for further explanation.</p> <p><b>Id:</b> Unique identification assigned to this foldout for reference purposes.</p> <p><b>Data:</b> "iges", "cgm", or "fax". Default = "iges". Specifies the type of data contained in the figure.</p> <p><b>Rotation:</b> "0", "90", "180", or "270". Default = "0". Specifies the degree to which the current graphic is to be rotated when set.</p>

TAG	ELEMENT	DESCRIPTION
<title security = x >	Figure foldout title	<p>Sets the title of the current figure foldout centered on the bottom line above the folio.</p> <p><b>NOTE:</b> The title of a figure foldout may have a security classification different than the figure itself; therefore, the title may have its own security attribute.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has previously been specified, it defaults to "U". Specifies the classification of the figure foldout title.</p>
</foldout>	End figure foldout	Ends the figure foldout.
</tm>	End technical manual	Ends the technical manual.

< tm >

< front >

< titlepg >

< pubno > T.O. 43D3-2-5-31-1

< pubid > TECHNICAL MANUAL

< title > OPERATION AND MAINTENANCE INSTRUCTIONS

< nomen > TRAINER  
FLIGHT SIMULATOR

< eqptno > A/F37A-T56  
(B-52G)

< mfr > NORTH STAR CORPORATION

< contrno > F33637-63-B-0032-1

< notice type = d > OO-ALC/MMED, Hill AFB, Utah 84056-5609.

< notice type = a >

< basedate > 4 OCTOBER 1983

< /titlepg >

< lep >

< idate >  
0\6 January 1982

< totalpgs > 22

< chgpgs >

< folio > Title < chglvl > 0

< folio > A < chglvl > 0

< folio > i - vi < chglvl > 0

< folio > 1-1 - 1-2 < chglvl > 0

< folio > 2-1 - 2-2 < chglvl > 0

< folio > 3-1 - 3-3 < chglvl > 0

< folio > 3-4 < status > Blank < chglvl > 0

< folio > 4-1 - 4-3 < chglvl > 0

< folio > 4-4 < status > Blank < chglvl > 0

< folio > A-1 < chglvl > 0

< folio> A-2 < status> Blank < chglvl> 0

< folio> Glossary 1 < chglvl> 0

< folio> Glossary 2 < status> Blank < chglvl> 0

< folio> Index 1 < chglvl> 0

< folio> Index 2 < status> Blank < chglvl> 0

< /lep>

< warnpg>

< warning type = v>

Tube types DA2 and 6530/PL-35 (TR tube) used in this equipment contain radioactive material (para 0-0). These tubes are potentially hazardous when broken; see qualified medical personnel and the Safety Director if you are exposed to or cut by broken tubes. For first aid instructions see TB 750-237 and AR 755-15. Use extreme care in replacing these tubes (para 0-0) and follow safe procedures in their handling, storage, and disposal (para 0-0). Refer to paragraph 0-0 and to TB 750-237 and AR 755-15 for instructions on handling, storage, and disposal of radioactive material.

< /warning>

< warning> type = v>

Dangerous Chemicals are used in this equipment. Death or severe burns may result if personnel fail to observe safety precautions.

< /warning>

< /warnpg>

< foreword>

< para> \This manual contains information necessary for operators to utilize the Message Processing and Distribution System (MPDS) AN/SYQ-6 in a fleet operational communications environment. This manual, together with COM(P)-6005, UM(P)-6602, UM(P)-6603, UM(P)-6604, and UM(P)-6606, replaces the MPDS RSOP PD(P)-6141 which has been discontinued.

< sigblk>

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Senior Documentation Specialist

AAA Software Company

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VERIFIED BY:

< byline>

LT E. R. Wrightwood

FLTCOMNBATDIRSSACT

Code 999

< /foreword>

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< safesum >

< para > \The following are general safety precautions that are not related to  
any specific procedures and therefore do not appear elsewhere in this  
publication. These are recommended precautions that personnel must  
understand and apply during many phases of operation and maintenance.

< para > Keep Away from Live Circuits\ Operating personnel must at all time  
observe all safety regulations. Do not replace components or make  
adjustments inside the equipment with the high voltage supply turned on.  
Under certain conditions, dangerous potentials may exist when the power  
control is in the off position, due to charges retained by capacitors. To  
avoid casualties, always remove power and discharge and ground a circuit  
before touching it.

< para > Do Not Service or Adjust Alone\ Under no circumstances should any  
person reach into or enter the enclosure for the purpose of servicing or  
adjusting the equipment except in the presence of someone who is capable of  
rendering aid.

< para > Resuscitation\ Personnel working with or near high voltages should be

familiar with modern methods of resuscitation. Such information may be obtained from the Bureau of Medicine and Surgery.

<para>\The following warning appears in the text in this volume, and is repeated here for emphasis.

<warning> High voltages capable of causing death are used in this equipment. Use extreme caution when servicing either the power supplies or their load components. (Page 6-681). </warning>

</safesum>

<body>

<part> SERVICE AND MAINTENANCE

<chapter> SEMI-ANNUAL SERVICE

<section> MAINTENANCE

<p0> General.\ This section contains maintenance instructions for the RD-100R. No attempt should be made to repair internal components or make adjustments until the operator is thoroughly familiar with the information contained in this section. The performance of the RD-100R may be checked using the minimum performance standards checks provided to determine whether the equipment is operating properly.

<p0>

<warning type = v>

Tube types DA2 and 6530/PL-35 (TR tube) used in this equipment contain radioactive material (para 0-0). These tubes are potentially hazardous when broken; see qualified medical personnel and the Safety Director if you are exposed to or cut by broken tubes. For first aid instructions see TB 750-237 and AR 755-15. Use extreme care in replacing these tubes (para 0-0) and follow safe procedures in their handling, storage, and disposal (para 0-0). Refer to paragraph 0-0 and to TB 750-237 and AR 755-15 for instructions on handling, storage, and disposal of radioactive material.

</warning>

Test Equipment Required.\ The test equipment required to maintain the RD-100R is a volt-ohmmeter that has a sensitivity of 20,000 ohms/volt such as a Simpson Model 262, or equivalent, and a 10-step reflection check plaque.

<p1> Inspection and Cleaning of Optical System.\ It is advisable to check the optical system on a periodic basis. The following monthly inspection procedure is suggested:

<s2> Inspect bottom of probe stand and stage disc for damage or accumulation of dirt.

<s2> Inspect light source, Stage Disc aperture, and annular ring for possible accumulation of dirt, such as dust, photographic emulsion, etc.

<s2> Check optical focus as follows:

<p3>\Depress probe and invert entire probe assembly.

<p3>\Place piece of translucent white paper over Stage Disc aperture.

<p1>

<warning> Provide adequate ventilation when using cleaning solvent. Only 1,1,1-Trichloroethane, Federal Specification O-T-620, should be used. Wear protective gloves and avoid skin contact.

</warning>

Inspection and Cleaning of Electronic and Electrical Components.\ (See figure 5-1, 5-2, and 5-3.) Concurrent with optical system inspection and cleaning, the inspection and cleaning (if required) of electronic and electrical components should be performed. Remove the instrument cover and check the wiring and all components for dirt, corrosion, charring, discoloring, and grease. Apply flux around the filler tube. Solder the filler tube in place using solder. The solder should form a 1/16 inch (approximately) fillet around the filler tube.

<p0> Component Replacement.\

<p1> Replacement of Optical System Component.\

<p2> Light Source Replacement.\(See figures 5-5 and 5-6.) A burned-out light source is replaced with a new pre-focused light source subassembly. To replace the light source, de-energize the instrument, unscrew (turn counterclockwise) the old light source assembly, and replace with a new light source.

<p2> Anti-Fatigue Lamp Replacement.\(See figure 5-4.) The life of anti-fatigue lamp L2 is in excess of 3,000 hours at its rated voltage of 14 volts.

<p3>\Included in this section are: a troubleshooting procedure to isolate troubles in the Densitometer and adjustment procedures to restore the unit to proper operating condition after the required repairs have been effected.

<p3>\Proceed as follows for secondary replacement of insert tube.

<p4>\To replace the light source, de-energize the instrument, unscrew (turn counterclockwise) the old light source assembly, and replace with a new light source.

<p3>\It is not necessary to remove the chassis unless resistor R11 must be replaced.

<s4> Proceed as follows for replacement of filler tube.

<note> Exercise care to replace the light shield so that its original position is restored.

</note>

<p1> Replacement of Electronic Components.\ All electronic components, except for resistor R11, are accessible for replacement by removing the instrument cover (figures 5-1 and 5-2). It is not necessary to remove the chassis unless resistor R11 must be replaced.

<p0> Repair and Replacement.\ Replace all parts found defective during

inspection and testing. Always replace control wiper assemblies when replacing printed wiring board. Repair is not recommended for any of the accelerometer parts except the terminal plate assembly. Repair of this assembly (which is part of frame and support assembly) consists of replacing the filler tube. Proceed as follows for replacement of filler tube. The replacement parts assembly are a matched pair. The replacement of one requires the replacement of the entire control wiper assembly.

< s1 > Melt solder and pull old tube out. Insert new filler tube so that the bottom of the tube extends 0.100 to 0.120 inch beyond the mounting plate surface that is facing the accelerometer frame. (Be sure all old solder is removed from plate and around the hole.)

< s1 > Apply flux, Military Specification MIL-F-14256, around the filler tube. Solder the filler tube in place using solder, Federal Specification QQ-S-571, COMP. SN60. The solder should form a 1/16 inch (approximately) fillet around the filler tube.

< /section >

< /chapter >

< chapter > MAINTENANCE TASKS

< section > DISASSEMBLY

< p0 > Engine Information. \The engine &ohgr; engages with the shaft key before the finger assembly closes. This spool must be oriented so that the film unwinds from the under side of the spool.

< p1 > \Feed the film through the magazine at a 25&deg; and onto the take-up spool as shown in figure 1-5. (This figure is also reproduced on the mechanism cover.) Care must be exercised to avoid tearing or catching the film on the fiducial markers of the focal plane frame. When the leading edge of the film appears between the clutch and roller assembly (2, figure 1-4) and the pressure roller assembly (3, figure 1-4),

< emph type = b > pull it through by pulling in a direction parallel < /emph > to the platen rather than pulling upwards, as an upward pull may stretch the pressure roller springs (4, figure 1-4). Insert the tapered, leading edge of the film in the slot in the take-up spool, and rotate the spool several turns to secure the film to it.

< p1 > \If it should be desired to pull film through the magazine in the reverse direction, this may be done by pulling the pressure roller assembly slightly < emph type = u > upwards and out of contact with the clutch and roller assembly, < /emph > then turning the feed spool in the direction to roll the film onto it. < ftnote > This is the first numbered footnote. < /ftnote > The clutch and roller assembly can not revolve in the reverse direction, but pulling the pressure roller assembly away from it makes it possible to slide the film over the clutch and roller assembly.

< figure width = 20 depth = 12 location = f16 >  
< title > Figure Falling in One Column  
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< p1 >

< warning > type = v >

Dangerous Chemicals are used in this equipment. Death or severe burns may result if personnel fail to observe safety precautions.

</warning>

After the film is properly loaded, replace the top and bottom covers. Make certain the top cover is firmly seated so the magazine will be light tight. The bottom cover should remain on until the magazine is placed on the camera. <ftnote> This is the second numbered footnote. </ftnote>

<p0> Installation of Magazine. \ Installation of the magazine in the airplane #8-11 <sub type = 2> is covered in paragraph 4-34. <sup type = 2>

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</chapter>

<chapter> MISCELLANEOUS MAINTENANCE TASKS

<section> PERIODIC INSPECTION, MAINTENANCE, AND LUBRICATION

<p0> Periodic Inspection. \ The periodic inspection consists of a visual inspection of the Tester components, inspecting and emptying the combined filter and moisture trap, and checking the calibration of the two gages (Section VII).

<para> \ The frame and support assembly with its bearing retaining plate are a matched pair. The replacement of one requires the replacement of the entire frame and support assembly.

<p1> Visual Inspection. \ This inspection is intended to aid maintenance personnel in determining whether the Tester is in suitable condition for use.

<s2> Remove the hoses from the storage compartment and inspect for condition of rubber and fittings. Check the fittings for damaged threads and cleanliness.

<s2> Check that wrenches and chains are securely attached.

<s2> Check condition of AN6290-2 gasket on P hose fitting.

<s2> Check schematic drawing holder for legibility.

<s2> Remove the panel assembly; check for cleanliness and condition.

<s3> Depress probe and invert entire probe assembly.

<s3> Place piece of translucent white paper over Stage Disc aperture.

<s3> Focus image of optical system light source filament in plane of paper and position approximately in center of Stage Disc aperture.

<s4> Proceed as follows for replacement of optical light source filament.

<table col = 2 type = xxx>

<title>Sample Definable Table

</title>

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<r>CONTROL-F\Causes the system to respond with two exclamation marks if the system is alive.

<r>CONTROL-H\Or backspace key, works exactly like the rubout key by deleting the last character typed at the terminal.

<r>CONTROL-L\Generates a form-feed character each time it is struck. Form-feeds (ff) are used to eject line printer listings to the top of the next page.

<r>CONTROL-PR\Suppresses and deletes all BOSS's output until a control-Q is used.

<r>CONTROL-\Resumes the output that was stopped by a control-P or a control-S.

</tbody>

</table>

<p0> Maintenance.\ The periodic inspection consists of a visual inspection of the Tester components, inspecting and emptying the combined filter and moisture trap, and checking the calibration of the two gages (Section VII).

<para>\ The frame and support assembly with its bearing retaining plate are a matched pair. The replacement of one requires the replacement of the entire frame and support assembly.

<p1> Visual Inspection.\ This inspection is intended to aid maintenance personnel in determining whether the Tester is in suitable condition for use.

<p1> Visual Inspection.\ This inspection is intended to aid maintenance personnel in determining whether the Tester is in suitable condition for use.

<p1> Visual Inspection.\ This inspection is intended to aid maintenance personnel in determining whether the Tester is in suitable condition for use.

<table type = def col = 2 content = a >

<title> Names and Addresses </title>

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<r> 012345\Air Industries Corp  
12345 Knott Street  
Garden Grove, CA 92641

<r> 23456\Microdot Aerospace  
800 State College Blvd  
Fullerton, CA 92631

F42650-85-C3410

<r>56789\SPS Technologies Inc  
Highland Ave  
Jenkintown PA 19046

<r>44321\Tire and Rim  
12345 Dueber Ave  
Canton OH 44706

<r>98765\Military Standards

<r>012345\Air Industries Corp  
12345 Knott Street  
Garden Grove, CA 92641

<r>23456\Microdot Aerospace  
800 State College Blvd  
Fullerton, CA 92631

<r>56789\SPS Technologies Inc  
Highland Ave  
Jenkintown PA 19046

<r>44321\Tire and Rim  
12345 Dueber Ave  
Canton OH 44706

<r>98765\Military Standards

<r>012345\Air Industries Corp  
12345 Knott Street  
Garden Grove, CA 92641

<r>23456\Microdot Aerospace  
800 State College Blvd  
Fullerton, CA 92631

<r>56789\SPS Technologies Inc  
Highland Ave  
Jenkintown PA 19046

<r>44321\Tire and Rim  
12345 Dueber Ave  
Canton OH 44706

<r>98765\Military Standards  
</tbody>

</table>

<p0>Lubrication.\ The periodic inspection consists of a visual inspection of the Tester components, inspecting and emptying the combined filter and moisture trap, and checking the calibration of the two gages (Section VII).

<para>\ The frame and support assembly with its bearing retaining plate are a matched pair. The replacement of one requires the replacement of the entire frame and support assembly.

<p1>Visual Inspection.\ This inspection is intended to aid maintenance personnel in determining whether the Tester is in suitable condition for use.

<p1>Visual Inspection.\ This inspection is intended to aid maintenance personnel in determining whether the Tester is in suitable condition for use.

<p1>Visual Inspection.\ This inspection is intended to aid maintenance personnel in determining whether the Tester is in suitable condition for use.

<s2> Check that wrenches and chains are securely attached.

<s2> Check condition of AN6290-2 gasket on P hose fitting.

<s2> Check schematic drawing holder for legibility.

<s2> Remove the panel assembly; check for cleanliness and condition.

<s3> Depress probe and invert entire probe assembly.

<s3> Place piece of translucent white paper over Stage Disc aperture.

<s3> Focus image of optical system light source filament in plane of paper and position approximately in center of Stage Disc aperture.

<s4> Proceed as follows for replacement of optical light source filament.

<table type = def col = 4 >

<title> Description of Deficiency </title>

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<r> 355TTW 84-324\00TTTS4-0146\D-121\IFF circuit breaker does interrupt power to the IFF and causes the IFF MODE FOUR light to illuminate

<r> 355TTW 84-319\00TTTs-0126\D-128\A O A indicator operates with M113 and M114 inserted

<r> 355TTW 84-323\00TTTS4-0120\D-123\External stores jettison circuit breakers have no effect on the jettison system

<r> 355TTW 84-324\00TTTS4-0146\D-121\IFF circuit breaker does interrupt power to the IFF and causes the IFF MODE FOUR light to illuminate

<r> 355TTW 84-319\00TTTs-0126\D-128\A O A indicator operates with M113 and M114 inserted

<r> 355TTW 84-323\00TTTS4-0120\D-123\External stores jettison circuit breakers have no effect on the jettison system

<r> 355TTW 84-324\00TTTS4-0146\D-123\IFF circuit breaker does interrupt power to the IFF and causes the IFF MODE FOUR light to illuminate

<r>355TTW 84-319\00TTTs-0126\D-128\A O A indicator operates with M113 and M114 inserted

</tbody>

</table>

<p1>Visual Inspection.\ This inspection is intended to aid maintenance personnel in determining whether the Tester is in suitable condition for use.

<p1>Visual Inspection.\ This inspection is intended to aid maintenance personnel in determining whether the Tester is in suitable condition for use.

</section>

</chapter>

<chapter>ILLUSTRATED PARTS BREAKDOWN

<section> MAINTENANCE PARTS LIST

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<smr> 001

<mplr>

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<fscm> 88795

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Panel 3, fuel system trainer (See figure 7-21-48 for NHA)

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<uoc> G

<smr>002

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</chapter>

</part>

<rear>

<appendix> SYSTEM CONTROL LIST PAPER TAPE FORMATS

<p0> Introduction\ Appendix A contains format specifications for the following system control list paper tapes:

<s1> Guard List (GML) - see Section B-2.

<s1> Master Security List (MSL) - see Section B-3.

<s1> Circuit Assignment List (CAL) - see Section B-4.

<s1> Standard Subject Identification Code List (SIC) - see Section B-5.

<s1> Ship's Routing Guide (SRG) - see Section B-6.

<p0> Letter Code\ The three letter code which identifies each list, and each line in the list must be followed by the control characters cr, cr, lf (carriage return, carriage return, line feed).

<p0> Format Considerations\ The following requirements must be met when formatting the Guard List:

<s1> Tape must begin with GML (cr) (cr) (lf).

<s1> Each line thereafter must end in the characters (cr) (cr) (lf).

<s1> Two lines comprise a single Guard List entry:

<s2> First line contains the name of the addressee

<s2> Second line contains the disposition and distribution indicators corresponding to that addressee.

<s1> All single addressees must appear ahead of any group addresses.

</appendix>

<glossary>

<glositem>ADDRESS\ A location in computer core, on mass storage or on long term storage. Individual words are addressed in core; sectors (74D word blocks) and tracks (884D word blocks) are addressed on disk or drum; and records and files are addressed on magnetic tape.

<glositem>A-REGISTER\ A CP arithmetic register which is addressable. It is used as an accumulator, often in conjunction with the Q-register.

<glositem>ASCII\ American Standard Code for Information Interchange. This is the standard alphanumeric code for data storage used by MPDS.

<glositem>BAUDOT\ A teletype standard code used by teletype circuits interfacing with MPDS.

<glositem>CANNED MESSAGE\ A preworded message delivered to a user terminal - usually specifying the completion or the failure of a task requested from that terminal (see local data sections of most MPDS modules).

<glositem>CD\ Common data base.

<glositem>CELL (MEMORY)\ The hardware which stores one 30 bit word of digital data in CPU core; CP-642B cells are of the ferrite ring (main core) or thin film (control memory) types.

<glositem>CENTRAL PROCESSOR UNIT (CPU)\ A CP-642B/USQ-20 Digital Data Computer.

<glositem>CHAIN ADDRESS\ MSA of next sector of chained data.

<glositem>CHANNEL\ MPDS uses 12 channels connecting hardware elements of the system. These are tabulated in table SDCPS.

<glositem>COMMON DATA (CD)\ Data in one CPU which may be used by any module executed in that CPU. Common data is accessed via the Common Data Base (CD).

</glossary>

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< /index >

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**T.O. 43D3-2-5-31-1**

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**TECHNICAL MANUAL**

**OPERATION AND MAINTENANCE INSTRUCTIONS**

**TRAINER  
FLIGHT SIMULATOR  
MODEL A/F37A-T56  
(B-52G)**

**NORTH STAR CORPORATION**

**F33637-63-B-0032-1**

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**WARNING**

Tube types DA2 and 6530/PL-35 (TR tube) used in this equipment contain radioactive material (para 0-0). These tubes are potentially hazardous when broken; see qualified medical personnel and the Safety Director if you are exposed to or cut by broken tubes. For first aid instructions see TB 750-237 and AR 755-15. Use extreme care in replacing these tubes (para 0-0) and follow safe procedures in their handling, storage, and disposal (para 0-0). Refer to paragraph 0-0 and to TB 750-237 and AR 755-15 for instructions on handling, storage, and disposal of radioactive material.

---

**WARNING**

Dangerous Chemicals are used in this equipment. Death or severe burns may result if personnel fail to observe safety precautions.

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## FOREWORD

This manual contains information necessary for operators to utilize the Message Processing and Distribution System (MPDS) AN/SYQ-6 in a fleet operational communications environment. This manual, together with COM(P)-6005, UM(P)-6602, UM(P)-6603, UM(P)-6604, and UM(P)-6606, replaces the MPDS RSOP PD(P)-6141 which has been discontinued.

VALIDATED BY:

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B. J. Mayer  
Senior Documentation Specialist  
A A A Software Company

VERIFIED BY:

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LT E. R. Wrightwood  
FLTCOMNBATDIRSSACT  
Code 999

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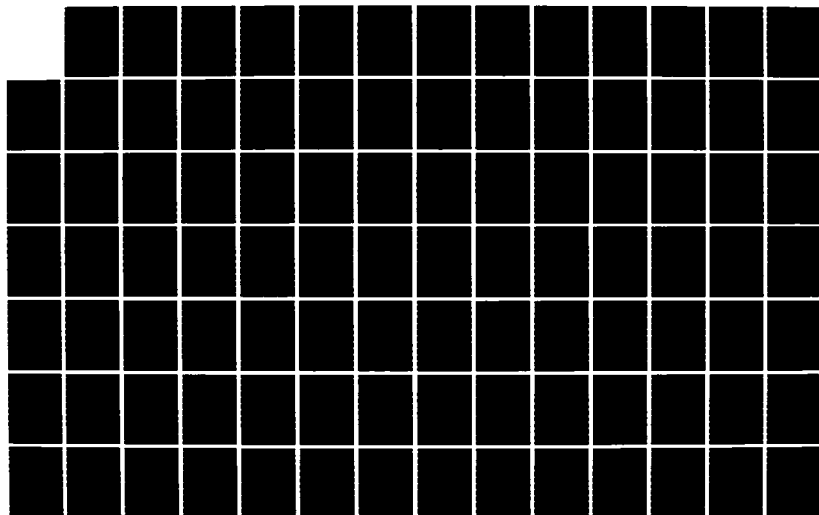
TEXT STANDARD GENERALIZED MARKUP LANGUAGE AUTOMATED  
TECHNICAL ORDER SYSTEM (ATOS)(U) DATALOGICS INC CHICAGO  
IL 23 MAY 86 F42658-85-C-3418

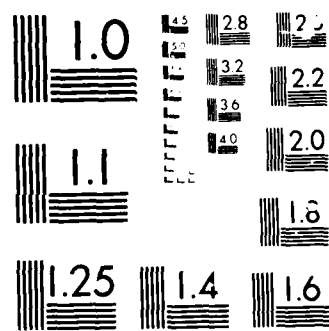
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## SAFETY SUMMARY

The following are general safety precautions that are not related to any specific procedures and therefore do not appear elsewhere in this publication. These are recommended precautions that personnel must understand and apply during many phases of operation and maintenance.

### KEEP AWAY FROM LIVE CIRCUITS

Operating personnel must at all time observe all safety regulations. Do not replace components or make adjustments inside the equipment with the high voltage supply turned on. Under certain conditions, dangerous potentials may exist when the power control is in the off position, due to charges retained by capacitors. To avoid casualties, always remove power and discharge and ground a circuit before touching it.

### DO NOT SERVICE OR ADJUST ALONE

Under no circumstances should any person reach into or enter the enclosure for the purpose of servicing or adjusting the equipment except in the presence of someone who is capable of rendering aid.

### RESUSCITATION

Personnel working with or near high voltages should be familiar with modern methods of resuscitation. Such information may be obtained from the Bureau of Medicine and Surgery.

The following warning appears in the text in this volume, and is repeated here for emphasis.

<b>WARNING</b>
----------------

High voltages capable of causing death are used in this equipment. Use extreme caution when servicing either the power supplies or their load components. (Page 6-681).

## PART ONE

### SERVICE AND MAINTENANCE

#### CHAPTER 1

#### SEMI-ANNUAL SERVICE

#### SECTION I

#### MAINTENANCE

1-1. GENERAL. This section contains maintenance instructions for the RD-100R. No attempt should be made to repair internal components or make adjustments until the operator is thoroughly familiar with the information contained in this section. The performance of the RD-100R may be checked using the minimum performance standards checks provided to determine whether the equipment is operating properly.

**WARNING**

Tube types DA2 and 6530/PL-35 (TR tube) used in this equipment contain radioactive material (para 0-0). These tubes are potentially hazardous when broken; see qualified medical personnel and the Safety Director if you are exposed to or cut by broken tubes. For first aid instructions see TB 750-237 and AR 755-15. Use extreme care in replacing these tubes (para 0-0) and follow safe procedures in their handling, storage, and disposal (para 0-0). Refer to paragraph 0-0 and to TB 750-237 and AR 755-15 for instructions on handling, storage, and disposal of radioactive material.

1-2. TEST EQUIPMENT REQUIRED. The test equipment required to maintain the RD-100R is a volt-ohmmeter that has a sensitivity of 20,000 ohms/

volt such as a Simpson Model 262, or equivalent, and a 10-step reflection check plaque.

a. Inspection and Cleaning of Optical System.

It is advisable to check the optical system on a periodic basis. The following monthly inspection procedure is suggested:

- (1) Inspect bottom of probe stand and stage disc for damage or accumulation of dirt.
- (2) Inspect light source, Stage Disc aperture, and annular ring for possible accumulation of dirt, such as dust, photographic emulsion, etc.
- (3) Check optical focus as follows:

(a) Depress probe and invert entire probe assembly.

(b) Place piece of translucent white paper over Stage Disc aperture.

**WARNING**

Provide adequate ventilation when using cleaning solvent. Only 1,1,1-Trichloroethane, Federal Specification O-T-620, should be used. Wear protective gloves and avoid skin contact.

b. Inspection and Cleaning of Electronic and Electrical Components. (See figure 5-1, 5-2, and 5-3.) Concurrent with optical system inspection and

cleaning, the inspection and cleaning (if required) of electronic and electrical components should be performed. Remove the instrument cover and check the wiring and all components for dirt, corrosion, charring, discoloring, and grease. Apply flux around the filler tube. Solder the filler tube in place using solder. The solder should form a 1/16 inch (approximately) fillet around the filler tube.

### 1-3. COMPONENT REPLACEMENT.

#### a. Replacement of Optical System Component.

(1) Light Source Replacement. (See figures 5-5 and 5-6.) A burned-out light source is replaced with a new pre-focused light source subassembly. To replace the light source, de-energize the instrument, unscrew (turn counterclockwise) the old light source assembly, and replace with a new light source.

(2) Anti-Fatigue Lamp Replacement. (See figure 5-4.) The life of anti-fatigue lamp L2 is in excess of 3,000 hours at its rated voltage of 14 volts.

(a) Included in this section are: a troubleshooting procedure to isolate troubles in the Densitometer and adjustment procedures to restore the unit to proper operating condition after the required repairs have been effected.

(b) Proceed as follows for secondary replacement of insert tube.

1 To replace the light source, de-energize the instrument, unscrew (turn counterclockwise) the old light source assembly, and replace with a new light source.

(c) It is not necessary to remove the chassis unless resistor R11 must be replaced.

- 1 Proceed as follows for replacement of filler tube.

### NOTE

Exercise care to replace the light shield so that its original position is restored.

b. Replacement of Electronic Components. All electronic components, except for resistor R11, are accessible for replacement by removing the instrument cover (figures 5-1 and 5-2). It is not necessary to remove the chassis unless resistor R11 must be replaced.

1-4. REPAIR AND REPLACEMENT. Replace all parts found defective during inspection and testing. Always replace control wiper assemblies when replacing printed wiring board. Repair is not recommended for any of the accelerometer parts except the terminal plate assembly. Repair of this assembly (which is part of frame and support assembly) consists of replacing the filler tube. Proceed as follows for replacement of filler tube. The replacement parts assembly are a matched pair. The replacement of one requires the replacement of the entire control wiper assembly.

- a. Melt solder and pull old tube out. Insert new filler tube so that the bottom of the tube extends 0.100 to 0.120 inch beyond the mounting plate surface that is facing the accelerometer frame. (Be sure all old solder is removed from plate and around the hole.)
- b. Apply flux, Military Specification MIL-F-14256, around the filler tube. Solder the filler tube in place using solder, Federal Specification QQ-S-571, COMP. SN60. The solder should form a 1/16 inch (approximately) fillet around the filler tube.

## CHAPTER 2

### MAINTENANCE TASKS

#### SECTION I

#### DISASSEMBLY

2-1. ENGINE INFORMATION. The engine  $\Omega$  engages with the shaft key before the finger assembly closes. This spool must be oriented so that the film unwinds from the under side of the spool.

a. Feed the film through the magazine at a 25° and onto the take-up spool as shown in figure 1-5. (This figure is also reproduced on the mechanism cover.) Care must be exercised to avoid tearing or catching the film on the fiducial markers of the focal plane frame. When the leading edge of the film appears between the clutch and roller assembly (2, figure 1-4) and the pressure roller assembly (3, figure 1-4), **pull it through by pulling in a direction parallel to the platen rather than pulling upwards**, as an upward pull may stretch the pressure roller springs (4, figure 1-4). Insert the tapered, leading edge of the film in the slot in the take-up spool, and rotate the spool several turns to secure the film to it.

b. If it should be desired to pull film through the magazine in the reverse direction, this may be done by pulling the pressure roller assembly slightly upwards and out of contact with the clutch and roller assembly, then turning the feed spool in the direction to roll the film onto it.<sup>1</sup> The clutch and roller assembly can not revolve in the reverse direction, but pulling the pressure roller assembly away from it makes it possible to slide the film over the clutch and roller assembly. If it should be desired to pull film through the magazine in the reverse direction, this may be done by pulling the pressure roller assembly slightly upwards and out of contact with the clutch and roller assembly, then turning the feed spool in the direction to roll the film onto it.

1. This is the first numbered footnote.

2. This is the second numbered footnote.

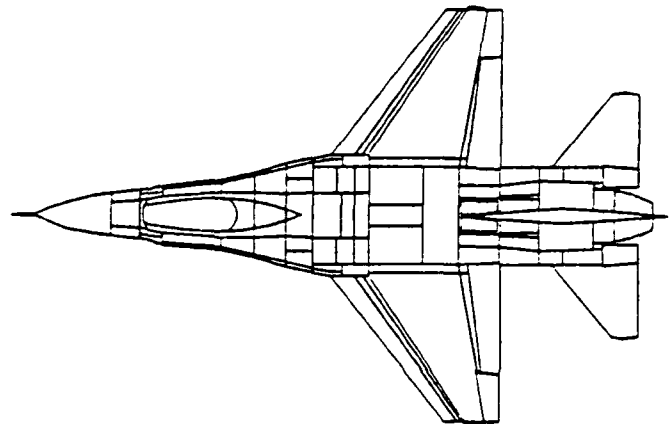


Figure 2-1 Figure Falling in One Column

#### WARNING

Dangerous Chemicals are used in this equipment. Death or severe burns may result if personnel fail to observe safety precautions.

c. After the film is properly loaded, replace the top and bottom covers. Make certain the top cover is firmly seated so the magazine will be light tight. The bottom cover should remain on until the magazine is placed on the camera.<sup>2</sup>

2-2. INSTALLATION OF MAGAZINE. Installation of the magazine in the airplane #8-11<sub>2</sub> is covered in paragraph 4-34.

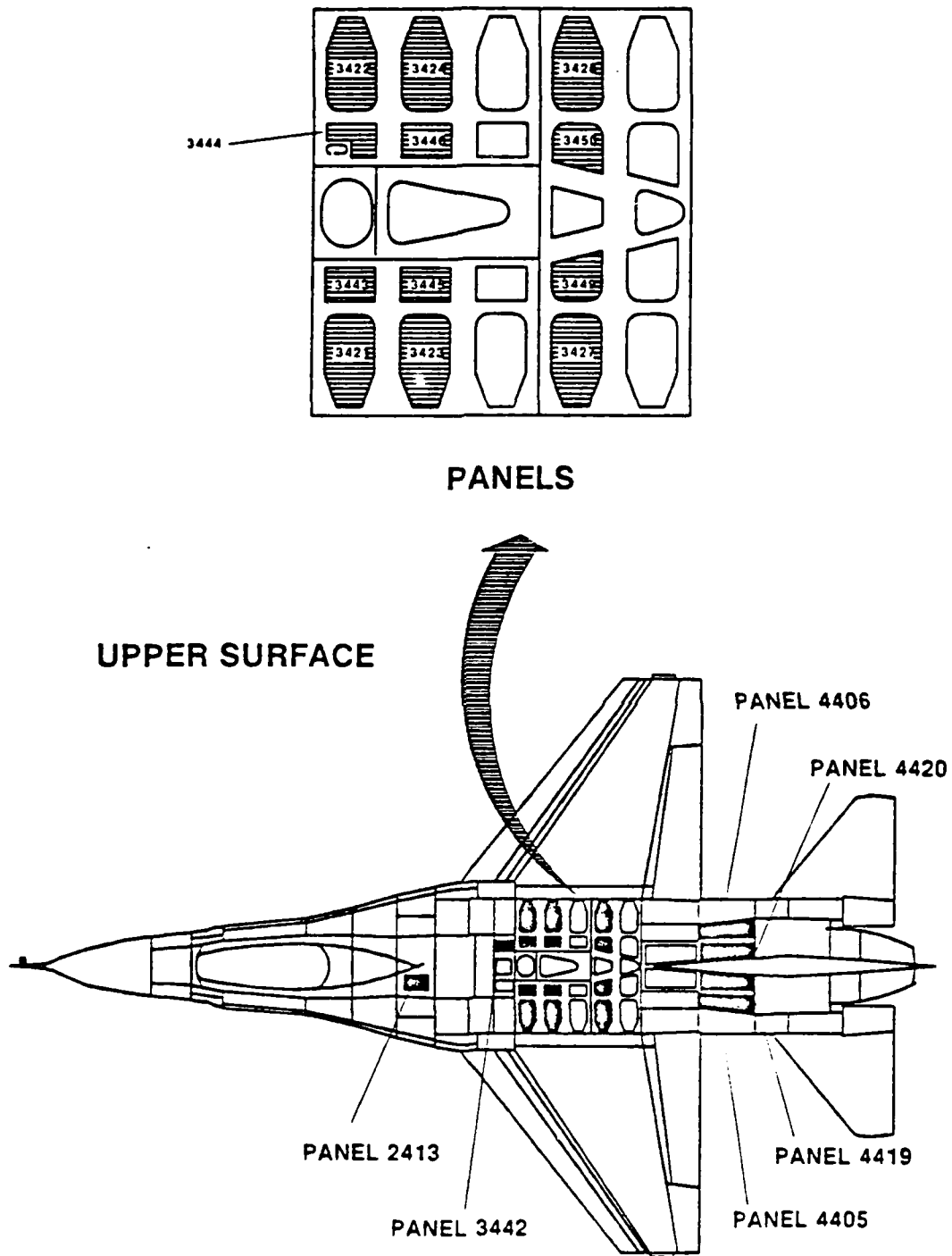


Figure 2-2. Figure Failing Across Two Columns

## CHAPTER 3

### MISCELLANEOUS MAINTENANCE TASKS

#### SECTION I

#### PERIODIC INSPECTION, MAINTENANCE, AND LUBRICATION

3-1. **PERIODIC INSPECTION.** The periodic inspection consists of a visual inspection of the Tester components, inspecting and emptying the combined filter and moisture trap, and checking the calibration of the two gages (Section VII).

The frame and support assembly with its bearing retaining plate are a matched pair. The replacement of one requires the replacement of the entire frame and support assembly.

a. Visual Inspection. This inspection is intended to aid maintenance personnel in determining whether the Tester is in suitable condition for use.

- (1) Remove the hoses from the storage compartment and inspect for condition of rubber and fittings. Check the fittings for damaged threads and cleanliness.
- (2) Check that wrenches and chains are securely attached.
- (3) Check condition of AN6290-2 gasket on P hose fitting.
- (4) Check schematic drawing holder for legibility.
- (5) Remove the panel assembly; check for cleanliness and condition.
  - (a) Depress probe and invert entire probe assembly.
  - (b) Place piece of translucent white paper over Stage Disc aperture.
  - (c) Focus image of optical system light source filament in plane of paper and position approximately in center of Stage Disc aperture.

1 Proceed as follows for replacement of optical light source filament.

Table 3-1. Sample Deflatable Table

CONTROL CHARACTER	RESULT
CONTROL-F	Causes the system to respond with two exclamation marks if the system is alive. Or backspace key, works exactly like the rubout key by deleting the last character typed at the terminal.
CONTROL-H	
CONTROL-L	Generates a form-feed character each time it is struck. Form-feeds (ff) are used to eject line printer listings to the top of the next page.
CONTROL-PR	Suppresses and deletes all BOSS's output until a control-Q is used.
CONTROL-	Resumes the output that was stopped by a control-P or a control-S.

3-2. **MAINTENANCE.** The periodic inspection consists of a visual inspection of the Tester components, inspecting and emptying the combined filter

and moisture trap, and checking the calibration of the two gages (Section VII).

The frame and support assembly with its bearing retaining plate are a matched pair. The replacement of one requires the replacement of the entire frame and support assembly.

a. Visual Inspection. This inspection is intended to aid maintenance personnel in determining whether the Tester is in suitable condition for use.

b. Visual Inspection. This inspection is intended to aid maintenance personnel in determining whether the Tester is in suitable condition for use.

c. Visual Inspection. This inspection is intended to aid maintenance personnel in determining whether the Tester is in suitable condition for use.

Table 4-2. Names and Addresses

Code	Name and Address
012345	Air Industries Corp 12345 Knott Street Garden Grove, CA 92641
23456	Microdot Aerospace 800 State College Blvd Fullerton, CA 92631
56789	SPS Technologies Inc Highland Ave Jenkintown PA 19046
44321	Tire and Rim 12345 Dueber Ave Canton OH 44706
98765	Military Standards
012345	Air Industries Corp 12345 Knott Street Garden Grove, CA 92641
23456	Microdot Aerospace 800 State College Blvd Fullerton, CA 92631
56789	SPS Technologies Inc Highland Ave Jenkintown PA 19046
44321	Tire and Rim 12345 Dueber Ave Canton OH 44706
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44321	Tire and Rim 12345 Dueber Ave Canton OH 44706
98765	Military Standards

3-3. LUBRICATION. The periodic inspection consists of a visual inspection of the Tester components, inspecting and emptying the combined filter and moisture trap, and checking the calibration of the two gages (Section VII).

The frame and support assembly with its bearing retaining plate are a matched pair. The replacement of one requires the replacement of the entire frame and support assembly.

a. Visual Inspection. This inspection is intended to aid maintenance personnel in determining whether the Tester is in suitable condition for use.

b. Visual Inspection. This inspection is intended to aid maintenance personnel in determining whether the Tester is in suitable condition for use.

c. Visual Inspection. This inspection is intended to aid maintenance personnel in determining whether the Tester is in suitable condition for use.

- (1) Check that wrenches and chains are securely attached.
- (2) Check condition of AN6290-2 gasket on P hose fitting.
- (3) Check schematic drawing holder for legibility.
- (4) Remove the panel assembly; check for cleanliness and condition.
  - (a) Depress probe and invert entire probe assembly.
  - (b) Place piece of translucent white paper over Stage Disc aperture.

- (c) Focus image of optical system light source filament in plane of paper and position approximately in center of Stage Disc aperture.

- 1 Proceed as follows for replacement of optical light source filament.

Table 3-3. Description of Deficiency

SDF	MIP	ECN	DESCRIPTION OF DEFICIENCY
355TTW 84-323	00TTTS4-0120	D-123	External stores jettison circuit breakers have no effect on the jettison system
355TTW 84-324	00TTTS4-0146	D-121	IFF circuit breaker does interrupt power to the IFF and causes the IFF MODE FOUR light to illuminate
355TTW 84-319	00TTTS-0126	D-128	A O A indicator operates with M113 and M114 inserted
355TTW 84-323	00TTTS4-0120	D-123	External stores jettison circuit breakers have no effect on the jettison system
355TTW 84-324	00TTTS4-0146	D-121	IFF circuit breaker does interrupt power to the IFF and causes the IFF MODE FOUR light to illuminate
355TTW 84-319	00TTTS-0126	D-128	A O A indicator operates with M113 and M114 inserted
355TTW 84-323	00TTTS4-0120	D-123	External stores jettison circuit breakers have no effect on the jettison system
355TTW 84-324	00TTTS4-0146	D-123	IFF circuit breaker does interrupt power to the IFF and causes the IFF MODE FOUR light to illuminate
355TTW 84-319	00TTTS-0126	D-128	A O A indicator operates with M113 and M114 inserted

d. Visual Inspection. This inspection is intended to aid maintenance personnel in determining whether the Tester is in suitable condition for use.

e. Visual Inspection. This inspection is intended to aid maintenance personnel in determining whether the Tester is in suitable condition for use.

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# CHAPTER 4 ILLUSTRATED PARTS BREAKDOWN

## SECTION I MAINTENANCE PARTS LIST

FIG & INDEX NO.	PART NUMBER	FSCM	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE	SMR CODE
8-22	18G4615-1	88795M	SUPERCHARGER INSTALLATION, Panel 3, fuel..... system trainer (See figure 7-21-18 for NHA)	REF	D	001
	18G4615-811	88795	SUPERCHARGER INSTALLATION, ..... Panel 3, fuel system trainer (See figure 7-21-18 for NHA)	REF	G	002
Y	AS21942L3		NUT.....	3		
Y	MN060C10		WASHER.....	3		
Y	NB86203-2		BOLT, hex hd, close tol..... aly. stl, short thd, nonlocking	3		
Y	SS21919DG10		CLAMP.....	2		
Y	SS21919DGB		CLAMP.....	4		
Y	18P1632-5	88795	TUBE, Lubrication, cooling..... integrated drive generator assembly of	1		

# CHAPTER 4 ILLUSTRATED PARTS BREAKDOWN

## SECTION II NUMERICAL INDEX

PART NUMBER	FIG & INDEX NO.	QTY. PER END ITEM	SMR
AB257P-201	4-25	2	M
AB304A	4-1	3	M
AB450-1032	4-1	3	B
AB476AD4	4-1	6	
AB551-10-8	4-59	2	
AB557-1032R8	4-30	2	
AB557-1032R10	4-29	6	

PART NUMBER	FIG & INDEX NO.	QTY. PER END ITEM	SMR
ABN557-420R10	4-96	4	
AB557-632R7	4-31	6	
AB557-632R12	4-31	6	
AB557-632R10	4-108	2	
AB536-00-3	4-33	18	

# CHAPTER 4 ILLUSTRATED PARTS BREAKDOWN

## SECTION III REFERENCE DESIGNATION INDEX

REFERENCE DESIGNATION	FIG & INDEX NO.	REFERENCE DESIGNATION	FIG & INDEX NO.	REFERENCE DESIGNATION	FIG & INDEX NO.
D8	1-1	DBA1R2	1-1	DBA1U7	1-1
DBA1	1-1	DBA1R3	1-1	DBA1U8	1-1
DBA1C1	1-1	DBA1R4	1-1	DBA2	F7-1-1
DBA1C2	1-1	DBA1R5	1-1	DBA1C3	1-1
DBA1C3	1-1	DBA1R6	1-1	DBA1C4	1-1
DBA1C4	1-1	DBA1R7	1-1	DBA1C5	1-1
DBA1C5	1-1	DBA1R8	1-1	DBA1C6	1-1
DBA1C6	1-1	DBA1R9	1-1	DBA1C7	1-1
DBA1C7	1-1	DBA1U1	1-1	DBA1C8	1-1
DBA1C8	1-1	DBA1U2	1-1	DBA1C9	1-1
DBA1C9	1-1	DBA1U3	1-1	DBA1C10	1-1
DBA1C10	1-1	DBA1U4	1-1	DBA1P3	F7-1-1
DBA1P3	F7-1-1	DBA1U5	1-1		
DBA1R1	1-1	DBA1U6	1-1		

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## APPENDIX A

## SYSTEM CONTROL LIST PAPER TAPE FORMATS

A-1. INTRODUCTION. Appendix A contains format specifications for the following system control list paper tapes:

- a. Guard List (GML) - see Section B-2.
- b. Master Security List (MSL) - see Section B-3.
- c. Circuit Assignment List (CAL) - see Section B-4.
- d. Standard Subject Identification Code List (SIC) - see Section B-5.
- e. Ship's Routing Guide (SRG) - see Section B-6.

A-2. LETTER CODE. The three letter code which identifies each list, and each line in the list must be followed by the control characters cr, cr, lf (carriage return, carriage return, line feed).

A-3. FORMAT CONSIDERATIONS. The following requirements must be met when formatting the Guard List:

- a. Tape must begin with GML (cr) (cr) (lf).
- b. Each line thereafter must end in the characters (cr) (cr) (lf).
- c. Two lines comprise a single Guard List entry:
  - (1) First line contains the name of the addressee
  - (2) Second line contains the disposition and distribution indicators corresponding to that addressee.
- d. All single addressees must appear ahead of any group addresses.

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## GLOSSARY

## A

ADDRESS— A location in computer core, on mass storage or on long term storage. Individual words are addressed in core; sectors (74D word blocks) and tracks (884D word blocks) are addressed on disk or drum; and records and files are addressed on magnetic tape.

A-REGISTER— A CP arithmetic register which is addressable. It is used as an accumulator, often in conjunction with the Q-register.

ASCII— American Standard Code for Information Interchange. This is the standard alphanumeric code for data storage used by MPDS.

## B

BAUDOT— A teletype standard code used by teletype circuits interfacing with MPDS.

## C

CANNED MESSAGE— A preworded message delivered to a user terminal— usually specifying the completion or the failure of a task requested from that terminal (see local data sections of most MPDS modules).

CD— Common data base.

CELL (MEMORY)— The hardware which stores one 30 bit word of digital data in CPU core; CP-642B cells are of the ferrite ring (main core) or thin film (control memory) types.

CENTRAL PROCESSOR UNIT (CPU)— A CP-642B/USQ-20 Digital Data Computer.

CHAIN ADDRESS— MSA of next sector of chained data.

CHANNEL— MPDS uses 12 channels connecting hardware elements of the system. These are tabulated in table SDCPS.

COMMON DATA (CD)— Data in one CPU which may be used by any module executed in that CPU. Common data is accessed via the Common Data Base (CD).

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# **APPENDIX B** **OPERATIONAL SUPPLEMENT:** **TYPE DEFINITION, TAG DESCRIPTIONS, SAMPLE INPUT, SAMPLE OUTPUT**

```

<!DOCTYPE os "TYPE DEFINITION FOR OPERATIONAL SUPPLEMENT" [
<!NOTATION iges      "Initial Graphics Exchange Standard" >
<!NOTATION cgm       "Computer Graphics Metafile" >
<!NOTATION fax       "CCITT Group 4 Facsimile" >
<!ENTITY % nums      partno | tono | rdno | pubno -- NUMBERS -->
<!ENTITY % parstruc   p0 | s0 | para -- Paragraph Structure Elements -->
<!ENTITY % attn       warning | caution | note -- Special Attention Elements -->
<!ENTITY % symbols     frag | sup | sub | symbol -- Symbols -->
<!ENTITY % txt         %symbols; | %nums; | #CDATA -- Text Data -->
<!ENTITY lang1        PUBLIC "ISO 8879 LANG-1" -- Latin Alphabetic Characters -- >
<!ENTITY lang2        PUBLIC "ISO 8879 LANG-2" -- Greek Alphabetic Characters -- >
<!ENTITY lang3        PUBLIC "ISO 8879 LANG-3" -- Cyrillic Alphabet -- >
<!ENTITY gen1         PUBLIC "ISO 8879 GEN-1" -- Numeric and Special Graphic Characters -- >
<!ENTITY gen2         PUBLIC "ISO 8879 GEN-2" -- Diacritical Marks as Separate Graphic Characters -- >
<!ENTITY gen3         PUBLIC "ISO 8879 GEN-3" -- Publishing Characters and Others -- >
<!ENTITY gen4         PUBLIC "ISO 8879 GEN-4" -- Proposed Box and Line Drawing Characters -- >
<!ENTITY tech1        PUBLIC "ISO 8879 TECH-1" -- Technical Characters -- >
<!ENTITY tech2        PUBLIC "ISO 8879 TECH-2" -- Greek Symbols for Technical Use -- >
<!ENTITY tech3        PUBLIC "ISO 8879 TECH-3" -- Alternate Greek Symbols for Technical Use -- >
<!ENTITY amsm         PUBLIC "ISO 8879 AMS-M" -- Mathematical Symbols, misc. -- >
<!ENTITY amsbl        PUBLIC "ISO 8879 AMS-BL" -- Mathematical Symbols, binary & large operators -- >
<!ENTITY amsr         PUBLIC "ISO 8879 AMS-R" -- Mathematical Symbols, Relations -- >
<!ENTITY amsn         PUBLIC "ISO 8879 AMS-N" -- Mathematical Symbols, Negated Relations -- >
<!ENTITY amsm         PUBLIC "ISO 8879 AMS-M" -- Mathematical Symbols, misc. -- >
<!ENTITY amsa         PUBLIC "ISO 8879 AMS-A" -- Mathematical Symbols, Arrow Relations -- >
<!ENTITY amsko        PUBLIC "ISO 8879 AMS-CO" -- Mathematical Symbols, Closing and Opening
                        Delimiters -- >
<!ENTITY etag         "<e>" >
<!SHORTREF emap       "\" etag >
<!USEMAP emap         "<table>" >
<!ENTITY psrtag       "<partno>" >
<!ENTITY psetag       "<serno>" >
<!SHORTREF psmmap     "&RE;" psrtag "\" psetag >
<!USEMAP psmmap       "<pslist>" >
<!ENTITY symtag       "<def>" >
<!SHORTREF symmap     "\" symtag >
<!USEMAP symmap       "<symsect>" >
<!ENTITY partag       "</head>" >
<!SHORTREF parmap     "\" partag >
<!USEMAP parmap       "<p0>" >
<!USEMAP parmap       "<para>" >
<!ENTITY modtag       "<modno>" >
<!SHORTREF modmap     "&RE;" modtag >
<!USEMAP modmap       "<modlist>" >
<!ENTITY parttag      "<partno>" >
<!SHORTREF partmap    "&RE;" parttag >
<!USEMAP partmap      "<partlist>" >

```

```

<!ENTITY stktag      "<stkno>" >
<!SHORTREF stkmap    "&RE;" stktag >
<!USEMAP stkmap      "<stklist>" >

```

- - ELEMENT		MIN	CONTENT	EXCEP-
ATTRIBUTE		VALUE		TIONS? DEFAULT - -
<!ELEMENT				
0	os	- -	(front, body, rear)	+ (ftnote)
	security	(u c s ts)		u
	branch	(a n f mc)		f
1	front	- o	(titlepg)	
2	body	- o	(change +)	
3	rear	- o	(#CDATA)	

-- ELEMENT	ATTRIBUTE	MIN	VALUE	CONTENT	EXCEPTIONS? DEFAULT --
-- Front Elements --					
4	titlepg	- -	(pubno, pubid, title, maintlvl*, nomen, mfr*, contrno*, notice+, basedate)		
5	pubno	- o	(#CDATA)		
6	pubid	- o	(#CDATA)		
7	title	o o	(#CDATA)		
	security		(u c s ts)		u
8	maintlvl	- o	(#CDATA)		
9	nomen	- o	(eqptname, eqptno*, (modno modlist partno partlist serno pslist stkno stklist)*)		
	security		(u c s ts)		u
10	mfr	- o	(#CDATA)		
11	contrno	- o	(#CDATA)		
12	eqptname	- o	(#CDATA)		
13	eqptno	- o	(#CDATA)		
14	notice	- o	(%txt.)		
	type		(d a s sr rb)		NULL
15	modlist	- o	(modno+)		
16	partlist	- o	(partno+)		
17	pslist	- o	(partno, serno)+		
18	stklist	- o	(stkno+)		

-- ELEMENT		MIN	CONTENT	EXCEP-
ATTRIBUTE	VALUE			TIONS? DEFAULT --
-- Body Elements --				
19 change	- 0	(head?, pagnum?, paratext, (%parstruc;   p1   s1   p2   s2   p3   s3   p4   s4   figure   foldout   table   mpl   ni   rdi) +)		
20 pagnum	- 0	(#CDATA)		
21 paratext	0 0	(%txt;   list) +		

-- ELEMENT	MIN	CONTENT	EXCEP-
ATTRIBUTE	VALUE		TIONS? DEFAULT - -
-- Paragraph Structures --			
22 p0	- o	((warning?, caution?, note?) & head), paratext, list?, note?, ((p1, p1+)   (s1, s1+)))	+ (figure   table   chart   foliout)
	security	(u   c   s   ts)	u
	status	(r   d   n   o)	n
23 s0	- o	(warning?, caution?, note?, paratext, list?, note?, ((p1, p1+)   (s1, s1+)))	
	security	(u   c   s   ts)	u
	status	(r   d   n   o)	n
24 p1	- o	((warning?, caution?, note?) & head), paratext, list?, note?, ((p2, p2+)   (s2, s2+)))	
	security	(u   c   s   ts)	u
	status	(r   d   n   o)	n
25 s1	- o	(warning?, caution?, note?, paratext, list?, note?, ((p2, p2+)   (s2, s2+)))	
	security	(u   c   s   ts)	u
	status	(r   d   n   o)	n
26 p2	- o	((warning?, caution?, note?) & head), paratext, list?, note?, ((p3, p3+)   (s3, s3+)))	
	security	(u   c   s   ts)	u
	status	(r   d   n   o)	n
27 s2	- o	(warning?, caution?, note?, paratext, list?, note?, ((p3, p3+)   (s3, s3+)))	
	security	(u   c   s   ts)	u
	status	(r   d   n   o)	n
28 p3	- o	((warning?, caution?, note?) & head), paratext, list?, note?, ((p4, p4+)   (s4, s4+)))	
	security	(u   c   s   ts)	u
	status	(r   d   n   o)	n
29 s3	- o	(warning?, caution?, note?, paratext, list?, note?, ((p4, p4+)   (s4, s4+)))	
	security	(u   c   s   ts)	u
	status	(r   d   n   o)	n

-- ELEMENT		MIN	CONTENT	EXCEP-	DEFAULT --
	ATTRIBUTE	VALUE		TIONS?	
30	p4	- o	((warning?, caution?, note?) & head), paratext, list?, note?)		
	security	(u c s ts)		u	
	status	(i d n o)		n	
31	s4	- o	(warning?, caution?, note?, paratext, list?, note?)		
	security	(u c s ts)		u	
	status	(i d n o)		n	

-- ELEMENT		MIN	CONTENT	EXCEP-
ATTRIBUTE	VALUE			TIONS? DEFAULT --
-- Warning   Caution   Note Elements --				
32 warning	- -	(title?, (figure   paratext   list) +)		
type	(v   n)			n
number	(y   n)			n
security	(u   c   s   ts)			u
33 caution	- -	(figure   paratext   list) +		
number	(y   n)			n
security	(u   c   s   ts)			u
34 note	- -	(figure   paratext   list) +		
number	(y   n)			n
security	(u   c   s   ts)			u

-- ELEMENT	ATTRIBUTE	MIN	CONTENT	EXCEP- TIONS?	DEFAULT --
-- Maintenance Parts List Elements --					
35	mpl	- -	(mplbody)		
	form		NUMBER		0
	column		NUMBER		REQUIRED
	security		(u c s ts)		u
36	mplbody	- -	(mplr +)		
37	mplr	- o	(fin?, partno, fscm?, desc, unit?, uoc?, smr?)		

-- ELEMENT	MIN	CONTENT	EXCEP-
ATTRIBUTE	VALUE		TIONS? DEFAULT --
-- Numerical Index Elements --			
38 ni	- -	(nibody)	
	form	NUMBER	0
	column	NUMBER	REQUIRED
	security	(u   c   s   ts)	u
39 nibody	- -	(nir +)	
40 nir	- o	(partno?, fin, qty?, smr?)	

-- ELEMENT	MIN	CONTENT	EXCEP-	DEFAULT --
ATTRIBUTE	VALUE		TIONS?	
-- Reference Designation Index Elements --				
41 rdi	- -	(rdibody)		
	form	NUMBER		0
	column	NUMBER		REQUIRED
	security	(u   c   s   ts)		u
42 rdibody	- -	(rdir +)		
43 rdir	- 0	(rdino?, fin)		

-- ELEMENT	ATTRIBUTE	MIN	VALUE	CONTENT	EXCEP- TIONS? DEFAULT --
-- Common IPB Elements --					
44	fin	- 0	(((volnum,"-"), [fignum,"-"])   ([fignum,"-"])?, indnum)		
45	rdino	- 0	(#CDATA)		
46	indnum	0 0	(#CDATA)		
47	fscm	- 0	(#CDATA)		
48	desc	- 0	(%txt;)		
49	unit	- 0	(#CDATA)		
50	uoc	- 0	(#CDATA)		
51	smr	- 0	(#CDATA)		
52	qty	- 0	(#CDATA)		

-- ELEMENT	ATTRIBUTE	MIN	VALUE	CONTENT	EXCEP- TIONS?	DEFAULT --
-- Figure Elements --						
53 figure		- -	(NDATA, (legend? & title))		- (table   chart   figure   foldout)	
	width		NUMBER			REQUIRED
	depth		NUMBER			REQUIRED
	status		(i   d   n   o   r)			n
	float		(y   n)			n
	security		(u   c   s   t)			u
	data		NOTATION (iges   cgm   fax)			iges
	location		CONREF			REQUIRED
	graphic		(y   n)			y
	rotation		(0   90   180   270)			0
	change		NUMBER			0
54 foldout		- -	(NDATA, (legend? & title))		- (table   chart   figure   foldout)	
	status		(i   d   n   o   r)			n
	security		(u   c   s   t)			u
	data		NOTATION (iges   cgm   fax)			iges
	location		CONREF			REQUIRED
	graphic		(y   n)			y
	rotation		(0   90   180   270)			0
	change		NUMBER			0
55 legend		- -	(symsect   para   list) +			
56 symsect		- -	(symr +)			
57 symr		- o	(sym. def)			
58 sym		o o	(#CDATA)			
59 def		- o	(%otxt.)			

-- ELEMENT	ATTRIBUTE	MIN	VALUE	CONTENT	EXCEPTIONS?	DEFAULT --
-- Table Elements --						
60 table		- -	(title?, thead?, tbody)		- (table   chart   figure   foldout)	
	col		NUMBER			REQUIRED
	sec		(u c s ts)			u
	status		(i d n o r)			n
	type		CDATA			REQUIRED
	content		(f a)			f
	change		NUMBER			0
61 thead		- -	(r +)			
62 tbody		- -	(r +)			
63 r		- 0	(e +)			
64 e		- 0	(%txt;)			
65 chart		- -	(title?, chthd?, chtbdy)		- (table   chart   figure   foldout)	
	col		NUMBER			REQUIRED
	sec		(u c s ts)			u
	status		(i d n o r)			n
	type		CDATA			REQUIRED
	content		(f a)			f
	change		NUMBER			0
66 chthd		- -	(r +)			
67 chtbdy		- -	(r +)			

-- ELEMENT	ATTRIBUTE	MIN	CONTENT VALUE	EXCEP- TIONS? DEFAULT --
-- Basic Document Elements --				
68 basedate		- o	(#CDATA)	
69 emph	type	- -	(%txt;) (q l b u s x)	q
70 fignum		- d	(#CDATA)	
71 flag	type	- o	NONE CDATA	REQUIRED
72 ftnote	box	- -	(%txt;) (y n)	- ftnote n
	over		(y n)	n
73 head		o -	(#CDATA)	
74 item		- o	(#CDATA)	
75 list	type	- -	(item +) (n b)	b
76 modno		- o	(#CDATA)	
77 para	security	- o	(head?, (paratext  %attn;) +) (u c s ts)	u
78 partno		- o	(#CDATA)	
79 serno		- o	(#CDATA)	
80 sub	type	- o	NONE CDATA	REQUIRED
81 sup	type	- o	NONE CDATA	REQUIRED
82 stkno		- o	(#CDATA)	
83 symbol	width	- o	NDATA NUMBER	REQUIRED
	depth		NUMBER	REQUIRED
	data		NOTATION (iges cgm fax)	iges
	location		CONREF	REQUIRED
	graphic		(y n)	y
	rotation		(0 90 180 270)	0
84 tono		- -	(#CDATA)	
85 volnum		- d	(#CDATA)	
> ] >				

### Descriptions of Tags for OPERATIONAL SUPPLEMENT

TAG	ELEMENT	DESCRIPTION
<b>&lt;os security = x branch = x&gt;</b>	Begin Operational Supplement	<p>Begins the Operational Supplement, sets the OS border page, and sets the heading and footing for subsequent pages.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = "U". Specifies the classification of the document. If the classification of the overall document is unclassified (the default), the security attribute may be omitted for other calls within the document.</p> <p><b>Branch:</b> "F" (Air Force), "A" (Army), "N" (Navy), or "MC" (Marine Corps). Default = "F". Specifies the military branch of the procuring activity (branch primarily responsible for the document).</p>
<b>&lt;front&gt;</b>	Begin front	Begins the front matter of the OS.
<b>&lt;titlepg&gt;</b>	Begin title block page	Begins the title block page.
<b>&lt;pubno&gt;</b>	Publication number	Sets the publication number entry on the title block page. All prefixes (e.g., T.O.) must be specified.
<b>&lt;pubid&gt;</b>	Publication identification name	Centers the operator-entered publication name below the rule on the title page. If the tag is entered without text, the leading will be set without text.
<b>&lt;title security = x&gt;</b>	Title	<p>Centers the operator-entered operational supplement title on the title block page.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the title.</p>
<b>&lt;maintlvl&gt;</b>	Maintenance level	Centers the operator-entered maintenance level on the title block page.
<b>&lt;nomen security = x&gt;</b>	Equipment nomenclature	<p>Centers the operator-entered equipment nomenclature on the title block page.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the equipment nomenclature.</p>
<b>&lt;eqptno&gt;</b>	Equipment number	<p>Centers the operator-entered equipment number on the title block page.</p> <p>If, after the equipment number, a list of model, part, serial, or stock numbers is desired, it must begin with the call to the appropriate list (described below).</p>

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TAG	ELEMENT	DESCRIPTION
<modlist> <partlist> <stklist>	Model numbers list Part numbers list Stock numbers list	Sets the operator-entered list of model, part, or stock numbers on the title block page in two columns beneath the appropriate centered heading. Each model, part, and stock number must be entered on a separate line.
<pslist>	Part/serial numbers list	Sets the operator-entered list of part and serial numbers on the title block page. The numbers are listed in a two-column table with the heading "PART NUMBER" on the left and "SERIAL NUMBER" on the right. Each part number must be followed by a backslash and the serial number; each part/serial number must be entered on a separate line.
<modno> <partno> <serno> <stkno>	Model number Part number Serial number Stock number	These tags center the operator-entered number on the title block page.
<mfr>	Manufacturer's name	Centers the operator-entered manufacturer's name on the title block page.

TAG	ELEMENT	DESCRIPTION
<contrno>	Contract number	Centers the operator-entered contract number on the title block page.
<notice type = x>	Notices	<p>Sets notices on the title block page.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Type:</b> "B" (branch), "SR" (supplement/replacement), "S" (supplement), "D" (distribution), "A" (authority), "R" (responsibility). Default = NULL.</p> <p>Specifies the type of notice to be inserted on the page. Notices for which the type has not been specified are entered by the operator; they are indented and set beneath the previous entry.</p> <p>The <b>branch notice "B"</b> is an unknown operator-entered notice which is quad centered at the bottom of the title block page.</p> <p>The <b>supplement/replacement notice "SR"</b> sets the standard text "THIS PUBLICATION SUPPLEMENTS xx xxx DATED yyy AND SUPERCEDES OPERATIONAL SUPPLEMENT xx xxx DATED yyy", where xxx entries are the operator-entered publication numbers and yyy entries are respective publication dates. Any additional text must be entered by the operator.</p> <p>The <b>supplement notice "S"</b> sets the standard text "THIS PUBLICATION SUPPLEMENTS xx xxx DATED yyy", where xxx is the operator-entered publication number and yyy is its publication date. Any additional text must be entered by the operator.</p> <p>The <b>distribution notice "D"</b> sets the standard text "This publication is required for official use or for administrative or operational purposes only. Distribution is limited to US Government agencies. Other requests for this document must be referred to", followed by the operator-entered distribution agency.</p> <p>The <b>authority notice "A"</b> sets and centers the standard text "Published under Authority of the Secretary of the Air Force."</p> <p>The <b>responsibility notice "R"</b> centers the standard text: "COMMANDERS ARE RESPONSIBLE FOR BRINGING THIS SUPPLEMENT TO THE ATTENTION OF ALL AFFECTED AF PERSONNEL".</p>
<basedate>	Publication date	Sets the line rule, followed by the operator-entered publication date beneath the title block.
</titlepg>	End title block.	Ends the title block page.
<body>	Begin body of OS	Begins the body of the OS. Sets the head and foot of the body.
<change>	Change paragraph	<p>Begins a change paragraph within the body of the document. Sets a sequential arabic numeral, followed by the operator-entered text describing the change.</p> <p><b>NOTE:</b> The &lt;change&gt; tag may be followed by a paragraph title. This title is ended, and the actual text of the paragraph begun, with a backslash character. If there is no title for the paragraph, the tag should be followed immediately with a backslash.</p>
<pagnum>	Page number	Specifies the page number of the referenced material.

TAG	ELEMENT	DESCRIPTION
<p>&lt;p0 &lt;p1 &lt;p2 &lt;p3 &lt;p4 security = x status = x &gt;</p>	<p>Primary paragraph 1st subordinate paragraph 2nd subordinate paragraph 3rd subordinate paragraph 4th subordinate paragraph</p>	<p>Automatically numbers, indents when appropriate, and sets the operator-entered paragraph. The tag specifies the level of the paragraph.</p> <p><b>NOTE:</b> The &lt;p0&gt; through &lt;p4&gt; tags may be followed by a paragraph title. This title is ended, and the actual text of the paragraph begun, with a backslash character. If there is no title for the paragraph, the tag should be followed immediately with a backslash.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has previously been specified, it defaults to "U". Specifies the classification of the paragraph.</p> <p><b>Status:</b> "OlxI" (override), "I" (inserted), "D" (deleted), or "N" (normal). Default = "N". Specifies the current status of the paragraph.</p> <p><b>NOTE:</b> It would be unusual to number the supplement text paragraphs sequentially, therefore the override attribute should be used most often. The paragraph is numbered by the operator-entered number/letter after the "O" between backslash characters; any string of characters is legal.</p>
<p>&lt;s0 &lt;s1 &lt;s2 &lt;s3 &lt;s4 security = x status = x &gt;</p>	<p>Primary procedural step 1st subord. procedural step 2nd subord. procedural step 3rd subord. procedural step 4th subord. procedural step</p>	<p>Automatically numbers and sets the operator-entered procedural step of the level specified in the tag.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has previously been specified, it defaults to "U". Specifies the classification of the procedural step.</p> <p><b>Status:</b> "OlxI" (override), "I" (inserted), "D" (deleted), or "N" (normal). Default = "N". Specifies the current status of the procedural step.</p> <p><b>NOTE:</b> It would be unusual to number the supplement text procedural steps sequentially, therefore the override attribute should be used most often. The procedural step is numbered by the operator-entered number/letter after the "O" between backslash characters; any string of characters is legal.</p>
<p>&lt;para security = x indent = x &gt;</p>	<p>Paragraph</p>	<p>Sets the operator-entered paragraph text with no number.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the paragraph.</p>

TAG	ELEMENT	DESCRIPTION
<b>&lt;warning security = x number = x type = x&gt;</b>	Begin warning	<p>Sets the warning head in a double box above the first line of text to follow. The warning head is followed by a paragraph or list.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the warning.</p> <p><b>Number:</b> "N" (no) or "Y" (yes). Default = "N". Optional numeric identification of the warning for reference purposes.</p> <p><b>Type:</b> "V" (vital) or "N" (non-vital). Default = "N". Specifies whether the warning is vital or not. All vital warnings are extracted to appear on a T.O. warning page.</p>
<b>&lt;/warning&gt;</b>	End warning	Ends warning.
<b>&lt;caution security = x number = x&gt;</b>	Begin caution	<p>Sets the caution heading with a single box above the first line of text to follow. The caution head is followed by a paragraph or a list.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the caution.</p> <p><b>Number:</b> "N" (no) or "Y" (yes). Default = "N". Optional numeric identification of the caution for reference purposes.</p>
<b>&lt;/caution&gt;</b>	End caution	Ends caution.
<b>&lt;note security = x number = x&gt;</b>	Begin note	<p>Sets the note head in bold upper-case above the first line of text to follow. The note head is followed by a paragraph or a list.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the note.</p> <p><b>Number:</b> "N" (no) or "Y" (yes). Default = "N". Optional numeric identification of the note for reference purposes.</p>
<b>&lt;/note&gt;</b>	End note	Ends note.
<b>&lt;rear&gt;</b>	Begins rear	Sets and centers the words "The End" at the end of an operational supplement.
<b>&lt;/os&gt;</b>	End Operational Supplement	Ends the Operational Supplement.

NOTE - Please see descriptions under MIL-M-38784A, Appendix A, for descriptions of tags pertaining to IPB's, figures, tables, charts, and foldouts.

F42650-85-C3410

< os >

< front >

< titlepg >

< pubno > T.O. PRUF-03-01-PAGER-V4S-5

< pubid > TECHNICAL MANUAL

< title > STORAGE AND MAINTENANCE PROCEDURES

< nomen > ROCKET MOTOR

< eqptno > F-111 SERIES AIRCRAFT

< partno > PART NO. 2615-502  
(ROCKET POWER)

< notice > THIS PUBLICATION SUPPLEMENTS T.O. 11P9-13-7 DATED 2 APRIL 1979 AND  
FORMALIZES INTERIM OPERATIONS SUPPLEMENT T.O. 11P9-13-7S-6 DATED 6 JUNE 1984.  
Reference to this supplement will be made on the title page of the basic  
publication by personnel responsible for maintaining the publication in  
current status.

< notice type = r >

< notice type = d > OO-ALC/MMED, Hill AFB, Utah 84056.

< notice type = a >

< basedate > 6 JUNE 1984

< /titlepg >

< body >

< change >

< pagnum > 4-2 < /pagnum >  
table 4-1 of basic manual is amended to change LIFE  
(MONTHS) SHELF column from 66 to read 120 and SERVICE column from 48 to  
read 120.

< rear >

< /os >

F42650-85-C3410

# TECHNICAL MANUAL

## STORAGE AND MAINTENANCE PROCEDURES

### ROCKET MOTOR

### F-111 SERIES AIRCRAFT

### PART NO. 2615-502

### (ROCKET POWER)

THIS PUBLICATION SUPPLEMENTS T.O. 11P9-13-7 DATED 2 APRIL 1979 AND FORMALIZES INTERIM OPERATIONS SUPPLEMENT T.O. 11P9-13-75-6 DATED 6 JUNE 1984. Reference to this supplement will be made on the title page of the basic publication by personnel responsible for maintaining the publication in current status.

COMMANDERS ARE RESPONSIBLE FOR BRINGING THIS SUPPLEMENT TO THE ATTENTION OF ALL AFFECTED AF PERSONNEL

This publication is required for official use or for administrative or operational purposes only. Distribution is limited to US Government agencies. Other requests for this document must be referred to DD-ALC/MMED, Hill AFB, Utah 84056.

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Published under authority of the Secretary of the Air Force

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6 JUNE 1984

1. Page 4-2, table 4-1 of basic manual is amended to change LIFE (MONTHS) SHELF column from 66 to read 120 and SERVICE column from 48 to read 120.

THE END

1/(2 blank)

F42650-85-C3410

# APPENDIX C SAFETY SUPPLEMENT: TYPE DEFINITION, TAG DESCRIPTIONS, SAMPLE INPUT, SAMPLE OUTPUT

```

<!DOCTYPE ss "TYPE DEFINITION FOR SAFETY SUPPLEMENT" [
<!NOTATION iges          "Initial Graphics Exchange Standard" >
<!NOTATION cgm           "Computer Graphics Metafile" >
<!NOTATION fax           "CCITT Group 4 Facsimile" >
<!ENTITY % nums          partno|tono|rdno|pubno -- NUMBERS -->
<!ENTITY % parstruc      p0|s0|para -- Paragraph Structure Elements -->
<!ENTITY % attn          warning|caution|note -- Special Attention Elements -->
<!ENTITY % symbols       flag|sup|sub|symbol -- Symbols -->
<!ENTITY % txt           %symbols;| %nums;| #CDATA -- Text Data -->
<!ENTITY lang1           PUBLIC "ISO 8879 LANG-1" -- Latin Alphabetic Characters -- >
<!ENTITY lang2           PUBLIC "ISO 8879 LANG-2" -- Greek Alphabetic Characters -- >
<!ENTITY lang3           PUBLIC "ISO 8879 LANG-3" -- Cyrillic Alphabet -- >
<!ENTITY gen1            PUBLIC "ISO 8879 GEN-1" -- Numeric and Special Graphic Characters -- >
<!ENTITY gen2            PUBLIC "ISO 8879 GEN-2" -- Diacritical Marks as Separate Graphic Characters -- >
<!ENTITY gen3            PUBLIC "ISO 8879 GEN-3" -- Publishing Characters and Others -- >
<!ENTITY gen4            PUBLIC "ISO 8879 GEN-4" -- Proposed Box and Line Drawing Characters -- >
<!ENTITY tech1           PUBLIC "ISO 8879 TECH-1" -- Technical Characters -- >
<!ENTITY tech2           PUBLIC "ISO 8879 TECH-2" -- Greek Symbols for Technical Use -- >
<!ENTITY tech3           PUBLIC "ISO 8879 TECH-3" -- Alternate Greek Symbols for Technical Use -- >
<!ENTITY amsm            PUBLIC "ISO 8879 AMS-M" -- Mathematical Symbols, misc. -- >
<!ENTITY amsbl           PUBLIC "ISO 8879 AMS-BL" -- Mathematical Symbols, binary & large operators -- >
<!ENTITY amsr            PUBLIC "ISO 8879 AMS-R" -- Mathematical Symbols, Relations -- >
<!ENTITY amsn            PUBLIC "ISO 8879 AMS-N" -- Mathematical Symbols, Negated Relations -- >
<!ENTITY amsm            PUBLIC "ISO 8879 AMS-M" -- Mathematical Symbols, misc. -- >
<!ENTITY amsa            PUBLIC "ISO 8879 AMS-A" -- Mathematical Symbols, Arrow Relations -- >
<!ENTITY amsco           PUBLIC "ISO 8879 AMS-CO" -- Mathematical Symbols, Closing and Opening
                        Delimiters -- >
<!ENTITY etag            "<e>" >
<!SHORTREF emap          "\" etag >
<!USEMAP emap            "<table>" >
<!ENTITY psrtag          "<partno>" >
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F42650-85-C3410

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	security		(u c s ts)	u
	branch		(a n f mc)	f
1	front	- 0	(titlepg)	
2	body	- 0	(change+)	
3	rear	- 0	(#CDATA)	

-- ELEMENT	ATTRIBUTE	MIN VALUE	CONTENT	EXCEP- TIONS? DEFAULT --
-- Front Elements --				
4 titlepg		- -	(pubno, pubid, title, maintlvl*, nomen, mfr*, contrno*, notice+, basedate)	
5 pubno		- 0	(#CDATA)	
6 pubid		- 0	(#CDATA)	
7 title		0 0	(#CDATA)	
	security		(u c s ts)	u
8 maintlvl		- 0	(#CDATA)	
9 nomen		- 0	(eqptname, eqptno*, (modno modlist  partno partlist serno pslist stkno  stklist)*)	
	security		(u c s ts)	u
10 mfr		- 0	(#CDATA)	
11 contrno		- 0	(#CDATA)	
12 eqptname		- 0	(#CDATA)	
13 eqptno		- 0	(#CDATA)	
14 notice		- 0	( <sup>0</sup> txt;)	
	type		(d a s sr rlb)	NULL
15 modlist		- 0	(modno+)	
16 partlist		- 0	(partno+)	
17 pslist		- 0	(partno, serno)+	
18 stklist		- 0	(stkno+)	

-- ELEMENT		MIN	CONTENT	EXCEP-
ATTRIBUTE	VALUE			TIONS? DEFAULT --
-- Body Elements --				
19 change	- o	(head?, pagnum?, paratext, (%parstruc;   p1   s1   p2   s2   p3   s3   p4   s4   figure   foldout   table   mp   ni   rd); +)		
20 pagnum	- o	(#CDATA)		
21 paratext	o o	(%txt;   list) +		

-- ELEMENT	MIN	CONTENT	EXCEP-
ATTRIBUTE	VALUE		TIONS? DEFAULT --
-- Paragraph Structures --			
22 p0	- o	(((warning?, caution?, note?) & head), paratext, list?, note?, ((p1, p1 +)   (s1, s1 +)))*)	+ (figure   table   chart   foldout)
	security	(u   c   s   ts)	u
	status	(i   d   n   o)	n
23 s0	- o	(warning?, caution?, note? paratext, list?, note?, ((p1, p1 +)   (s1, s1 +)))*)	
	security	(u   c   s   ts)	u
	status	(i   d   n   o)	n
24 p1	- o	(((warning?, caution?, note?) & head), paratext, list?, note?, ((p2, p2 +)   (s2, s2 +)))*)	
	security	(u   c   s   ts)	u
	status	(i   d   n   o)	n
25 s1	- o	(warning?, caution?, note?, paratext, list?, note?, ((p2, p2 +)   (s2, s2 +)))*)	
	security	(u   c   s   ts)	u
	status	(i   d   n   o)	n
26 p2	- o	(((warning?, caution?, note?) & head), paratext, list?, note?, ((p3, p3 +)   (s3, s3 +)))*)	
	security	(u   c   s   ts)	u
	status	(i   d   n   o)	n
27 s2	- o	(warning?, caution?, note?, paratext, list?, note?, ((p3, p3 +)   (s3, s3 +)))*)	
	security	(u   c   s   ts)	u
	status	(i   d   n   o)	n
28 p3	- o	(((warning?, caution?, note?) & head), paratext, list?, note?, ((p4, p4 +)   (s4, s4 +)))*)	
	security	(u   c   s   ts)	u
	status	(i   d   n   o)	n
29 s3	- o	(warning?, caution?, note?, paratext, list?, note?, ((p4, p4 +)   (s4, s4 +)))*)	
	security	(u   c   s   ts)	u
	status	(i   d   n   o)	n

-- ELEMENT		MIN	CONTENT	EXCEP- TIONS?	DEFAULT --
	ATTRIBUTE	VALUE			
30 p4		- o	((warning?, caution?, note?) & head), paratext, list?, note?)		
	security	(u   c   s   ts)		u	
	status	(i   d   n   o)		n	
31 s4		- o	(warning?, caution?, note?, paratext, list?, note?)		
	security	(u   c   s   ts)		u	
	status	(i   d   n   o)		n	

-- ELEMENT		MIN	CONTENT	EXCEP-
ATTRIBUTE		VALUE		TIONS? DEFAULT --
-- Warning   Caution   Note Elements --				
32	warning	- -	(title?, (figure   paratext   list) +)	
	type	(v   n)		n
	number	(y   n)		n
	security	(u   c   s   ts)		u
33	caution	- -	(figure   paratext   list) +	
	number	(y   n)		n
	security	(u   c   s   ts)		u
34	note	- -	(figure   paratext   list) +	
	number	(y   n)		n
	security	(u   c   s   ts)		u

-- ELEMENT	ATTRIBUTE	MIN	VALUE	CONTENT	EXCEP- TIONS?	DEFAULT --
-- Maintenance Parts List Elements --						
35	mpl	- -	(mplbody)			
	form		NUMBER		0	
	column		NUMBER		REQUIRED	
	security		(u   c   s   ts)		u	
36	mplbody	- -	(mplr +)			
37	mplr	- 0	(fin?, partno, fscm?, desc, unit?, uoc?, smr?)			

- - ELEMENT	ATTRIBUTE	MIN	CONTENT	EXCEP- TIONS? DEFAULT - -
-- Numerical Index Elements --				
38 ni		- -	(nibody)	
	form		NUMBER	0
	column		NUMBER	REQUIRED
	security		(u   c   s   ts)	u
39 nibody		- -	(nir +)	
40 nir		- 0	(partno?, fin, qty?, smr?)	

-- ELEMENT		MIN	CONTENT	EXCEP-	
	ATTRIBUTE	VALUE		TIONS?	DEFAULT --
-- Reference Designation Index Elements --					
41	rdi	- -	(rdibody)		
	form	NUMBER		0	
	column	NUMBER		REQUIRED	
	security	(u c s ts)		u	
42	rdibody	- -	(rdir +)		
43	rdir	- 0	(rdino?, fin)		

-- ELEMENT		MIN	CONTENT	EXCEP-
ATTRIBUTE	VALUE			TIONS? DEFAULT --
-- Common IPB Elements --				
44 fin	- 0	(((volnum,'-'), (fignum,'-'))   ((fignum,'-')))?, indnum)		
45 rdino	- 0	(#CDATA)		
46 indnum	0 0	(#CDATA)		
47 fscm	- 0	(#CDATA)		
48 desc	- 0	(%txt;)		
49 unit	- 0	(#CDATA)		
50 uoc	- 0	(#CDATA)		
51 smr	- 0	(#CDATA)		
52 qty	- 0	(#CDATA)		

-- ELEMENT	ATTRIBUTE	MIN	CONTENT	EXCEP- TIONS?	DEFAULT --
-- Figure Elements --					
53 figure		- -	(NDATA, (legend? & title))	- (table   chart   figure   foldout)	
	width		NUMBER		REQUIRED
	depth		NUMBER		REQUIRED
	status		(i   d   n   o   r)		n
	float		(y   n)		n
	security		(u   c   s   ts)		u
	data		NOTATION (iges   cgm   fax)		iges
	location		CONREF		REQUIRED
	graphic		(y   n)		y
	rotation		(0   90   180   270)		0
	change		NUMBER		0
54 foldout		- -	(NDATA, (legend? & title))	- (table   chart   figure   foldout)	
	status		(i   d   n   o   r)		n
	security		(u   c   s   ts)		u
	data		NOTATION (iges   cgm   fax)		iges
	location		CONREF		REQUIRED
	graphic		(y   n)		y
	rotation		(0   90   180   270)		0
	change		NUMBER		0
55 legend		- -	(symsect   para   list) +		
56 symsect		- -	(symr +)		
57 symr		- 0	(sym, def)		
58 sym		0 0	(#CDATA)		
59 def		- 0	(%txt;)		

- - ELEMENT		MIN	CONTENT	EXCEP-
ATTRIBUTE		VALUE		TIONS? DEFAULT - -
-- Table Elements --				
60	table	- -	(title?, thead?, tbody)	- (table   chart   figure   foldout)
	col	NUMBER		REQUIRED
	sec	(u   c   s   ts)		u
	status	(i   d   n   o   r)		n
	type	CDATA		REQUIRED
	content	(f   a)		f
	change	NUMBER		0
61	thead	- -	(r +)	
62	tbody	- -	(r +)	
63	r	- 0	(e +)	
64	e	- 0	(%txt;)	
65	chart	- -	(title?, chthd?, chtbdy)	- (table   chart   figure   foldout)
	col	NUMBER		REQUIRED
	sec	(u   c   s   ts)		u
	status	(i   d   n   o   r)		n
	type	CDATA		REQUIRED
	content	(f   a)		f
	change	NUMBER		0
66	chthd	- -	(r +)	
67	chtbdy	- -	(r +)	

-- ELEMENT	ATTRIBUTE	MIN	CONTENT	EXCEP- TIONS?	DEFAULT --
-- Basic Document Elements --					
68	basedate	- o	(#CDATA)		
69	emph	- -	(%txt:)		
	type		(q   l   b   u   s   x)		q
70	fignum	- d	(#CDATA)		
71	flag	- o	NONE		
	type		CDATA		REQUIRED
72	ftnote	- -	(%txt:)	- ftnote	
	box		(y   n)		n
	over		(y   n)		n
73	head	o -	(#CDATA)		
74	item	- o	(#CDATA)		
75	list	- -	(item + )		
	type		(n   b)		b
76	modno	- o	(#CDATA)		
77	para	- o	(head?, (paratext   %attn;) + )		
	security		(u   c   s   ts)		u
78	partno	- o	(#CDATA)		
79	serno	- o	(#CDATA)		
80	sub	- o	NONE		
	type		CDATA		REQUIRED
81	sup	- o	NONE		
	type		CDATA		REQUIRED
82	stkno	- o	(#CDATA)		
83	symbol	- o	NDATA		
	width		NUMBER		REQUIRED
	depth		NUMBER		REQUIRED
	data		NOTATION (iges   cgm   fax)		iges
	location		CONREF		REQUIRED
	graphic		(y   n)		y
	rotation		(0   90   180   270)		0
84	tono	- -	(#CDATA)		
85	volnum	- d	(#CDATA)		
>	]	>			

### Descriptions of Tags for SAFETY SUPPLEMENT

TAG	ELEMENT	DESCRIPTION
<b>&lt;ss security = x branch = x&gt;</b>	Begin Safety Supplement	<p>Begins the Safety Supplement and sets the heading and footing for subsequent pages.</p> <p><b>NOTE:</b> The SS border and the responsibility notice will be preprinted. The tag formats allow for proper positioning around this information.</p> <p style="text-align: center;"><u>Optional Attribute(s)</u></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = "U". Specifies the classification of the document. If the classification of the overall document is unclassified (the default), the security attribute may be omitted for other calls within the document.</p> <p><b>Branch:</b> "F" (Air Force), "A" (Army), "N" (Navy), or "MC" (Marine Corps). Default = "F". Specifies the military branch of the procuring activity (branch primarily responsible for the document).</p>
<b>&lt;front&gt;</b>	Begin front	Begins the front matter of the SS.
<b>&lt;titlepg&gt;</b>	Begin title block page	Begins the title block page.
<b>&lt;pubno&gt;</b>	Publication number	Sets the publication number entry on the title block page. All prefixes (e.g., T.O.) must be specified.
<b>&lt;pubid&gt;</b>	Publication identification name	Centers the operator-entered publication name below the rule on the title block page. If the tag is entered without text, the leading will be set without text.
<b>&lt;title security = x&gt;</b>	Title	<p>Centers the operator-entered safety supplement title on the title block page.</p> <p style="text-align: center;"><u>Optional Attribute(s)</u></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has previously been specified, it defaults to "U". Specifies the classification of the title.</p>
<b>&lt;maintlvl&gt;</b>	Maintenance level	Centers the operator-entered maintenance level on the title block page.
<b>&lt;nomen security = x&gt;</b>	Equipment nomenclature	<p>Centers the operator-entered equipment nomenclature on the title block page.</p> <p style="text-align: center;"><u>Optional Attribute(s)</u></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has previously been specified, it defaults to "U". Specifies the classification of the equipment nomenclature.</p>

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<b>TAG</b>	<b>ELEMENT</b>	<b>DESCRIPTION</b>
<b>&lt;eqptno&gt;</b>	Equipment number	Centers the operator-entered equipment number on the title block page. If, after the equipment number, a list of model, part, serial, or stock numbers is desired, it must begin with the call to the appropriate list (described below).
<b>&lt;modlist&gt;</b> <b>&lt;partlist&gt;</b> <b>&lt;stklist&gt;</b>	Model numbers list Part numbers list Stock numbers list	Sets the operator-entered list of model, part, or stock numbers on the title block page in two columns beneath the appropriate centered heading. Each model, part, and stock number must be entered on a separate line.
<b>&lt;pslist&gt;</b>	Part/serial numbers list	Sets the operator-entered list of part and serial numbers on the title block page. The numbers are listed in a two-column table with the heading "PART NUMBER" on the left and "SERIAL NUMBER" on the right. Each part number must be followed by a backslash and the serial number; each part/serial number must be entered on a separate line.
<b>&lt;modno&gt;</b> <b>&lt;partno&gt;</b> <b>&lt;serno&gt;</b> <b>&lt;stkno&gt;</b>	Model number Part number Serial number Stock number	These tags center the operator-entered number on the title block page.
<b>&lt;mfr&gt;</b>	Manufacturer's name	Centers the operator-entered manufacturer's name on the title block page.
<b>&lt;contrno&gt;</b>	Contract number	Centers the operator-entered contract number on the title block page.

TAG	ELEMENT	DESCRIPTION
<notice type=x>	Notices	<p>Sets notices on the title block page. Hard carriage returns have no effect upon how lines are broken when a notice is set.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Type:</b> "B" (branch), "SR" (supplement/replacement), "S" (supplement), "D" (distribution), "A" (authority), "R" (responsibility). Default = NULL.</p> <p>Specifies the type of notice to be inserted on the page. Notices for which the type has not been specified are entered by the operator; they are indented and set beneath the previous entry.</p> <p>The <b>branch notice "B"</b> is an unknown operator-entered notice which is centered at the bottom of the title block page.</p> <p>The <b>supplement/replacement notice "SR"</b> sets the standard text "THIS PUBLICATION SUPPLEMENTS xx xxx DATED yyy AND SUPERCEDES SAFETY SUPPLEMENT xx xxx DATED yyy," where xxx entries are the operator-entered publication numbers and yyy entries are respective publication dates. Any additional text must be entered by the operator.</p> <p>The <b>supplement notice "S"</b> sets the standard text "THIS PUBLICATION SUPPLEMENTS xx xxx DATED yyy," where xxx is the operator-entered publication number and yyy is its publication date. Any additional text must be entered by the operator.</p> <p>The <b>distribution notice "D"</b> sets the standard text "This publication is required for official use or for administrative or operational purposes only. Distribution is limited to US Government agencies. Other requests for this document must be referred to", followed by the operator-entered distribution agency.</p> <p>The <b>authority notice "A"</b> sets and centers the standard text "Published under authority of the Secretary of the Air Force."</p> <p>The <b>responsibility notice "R"</b> allows appropriate leading for proper positioning of preprinted notice information. This tag is required on all SS title block pages.</p>
<basedate>	Publication date	Sets the line rule, followed by the operator-entered publication date beneath the title block.
</titlepg>	Ends the title block page	Ends the title block page of the SS.
<body>	Begin body of SS	Begins the body of the SS. Sets the head and foot of the body.
<change>	Change paragraph	<p>Begins a change paragraph within the body of the document. Sets a sequential arabic numeral, followed by the operator-entered text describing the change.</p> <p><b>NOTE:</b> The &lt;change&gt; tag may be followed by a paragraph title. This title is ended, and the actual text of the paragraph begun, with a backslash character. If there is no title for the paragraph, the tag should be followed immediately with a backslash.</p>
<pagnum>	Page number	Specifies the page number of the referenced material.

TAG	ELEMENT	DESCRIPTION
<p>&lt;p0 &lt;p1 &lt;p2 &lt;p3 &lt;p4 security = x status = x&gt;</p>	<p>Primary paragraph 1st subordinate paragraph 2nd subordinate paragraph 3rd subordinate paragraph 4th subordinate paragraph</p>	<p>Automatically numbers, indents when appropriate, and sets the operator-entered paragraph. The tag specifies the level of the paragraph.</p> <p><b>NOTE:</b> The &lt;p0&gt; through &lt;p4&gt; tags may be followed by a paragraph title. This title is ended, and the actual text of the paragraph begun, with a backslash character. If there is no title for the paragraph, the tag should be followed immediately with a backslash.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has previously been specified, it defaults to "U". Specifies the classification of the paragraph.</p> <p><b>Status:</b> "O\x" (override), "I" (inserted), "D" (deleted), or "N" (normal). Default = "N". Specifies the current status of the paragraph.</p> <p><b>NOTE:</b> It would be unusual to number the supplement text paragraphs sequentially, therefore the override attribute should be used most often. The paragraph is numbered by the operator-entered number/letter after the "O" between backslash characters; any string of characters is legal.</p>
<p>&lt;s0 &lt;s1 &lt;s2 &lt;s3 &lt;s4 security = x status = x&gt;</p>	<p>Primary procedural step 1st subord. procedural step 2nd subord. procedural step 3rd subord. procedural step 4rd subord. procedural step</p>	<p>Automatically numbers and sets the operator-entered procedural step of the level specified in the tag.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has previously been specified, it defaults to "U". Specifies the classification of the procedural step.</p> <p><b>Status:</b> "O\x" (override), "I" (inserted), "D" (deleted), or "N" (normal). Default = "N". Specifies the current status of the procedural step.</p> <p><b>NOTE:</b> It would be unusual to number the supplement text procedural steps sequentially, therefore the override attribute should be used most often. The procedural step is numbered by the operator-entered number/letter after the "O" between backslash characters; any string of characters is legal.</p>
<p>&lt;para security = x&gt;</p>	<p>Paragraph</p>	<p>Sets the operator-entered paragraph text with no number.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the paragraph.</p>

TAG	ELEMENT	DESCRIPTION
<b>&lt;warning security = x number = x type = x&gt;</b>	Begin warning	<p>Sets the warning head in a double box above the first line of text to follow. The warning head is followed by a paragraph or list.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the warning.</p> <p><b>Number:</b> "N" (no) or "Y" (yes). Default = "N". Optional numeric identification of the warning for reference purposes.</p> <p><b>Type:</b> "V" (vital) or "N" (non-vital). Default = "N". Specifies whether the warning is vital or not. All vital warnings are extracted to appear on a T.O. warning page.</p>
<b>&lt;/warning&gt;</b>	End warning	Ends warning.
<b>&lt;caution security = x number = x&gt;</b>	Begin caution	<p>Sets the caution heading with a single box above the first line of text to follow. The caution head is followed with a paragraph or a list.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the caution.</p> <p><b>Number:</b> "N" (no) or "Y" (yes). Default = "N". Optional numeric identification of the caution for reference purposes.</p>
<b>&lt;/caution&gt;</b>	End caution	Ends caution.
<b>&lt;note security = x number = x&gt;</b>	Begin note	<p>Sets the note head in bold upper-case above the first line of text to follow. The note head is followed by a paragraph or a list.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the note.</p> <p><b>Number:</b> "N" (no) or "Y" (yes). Default = "N". Optional numeric identification of the note for reference purposes.</p>
<b>&lt;/note&gt;</b>	End note	Ends note.
<b>&lt;rear&gt;</b>	Begin rear	Sets and centers the words "The End" at the end of a safety supplement.
<b>&lt;/ss&gt;</b>	End Safety Supplement	Ends the Safety Supplement.

NOTE - Please see descriptions under MIL-M-38784A, Appendix A, for descriptions of tags pertaining to IPB's, figures, tables, charts, and foldouts.

F42650-85-C3410

< ss >

< front >

< titlepg >

< pubno > PRUF-03-01-PAGER-V4SS-6

< pubid > TECHNICAL MANUAL

< title > HANDBOOK

< nomen > OVERHAUL INSTRUCTIONS  
NOSE LANDING GEAR  
STEERING CYLINDER ASSEMBLY

< modlist > 402306-3

695040

695548-3

695568-1

695568-3

< notice type = s > 9H2-3-12-3

1 APRIL 1958.

Reference to this supplement will be made on the title page of the basic manual by personnel responsible for maintaining the publication in current status.

< notice type = r >

< notice type = d > OO-ALC/MMED, Hill AFB, Utah 84056.

< notice type = a >

< basedate > 19 JUNE 1984

< /titlepg >

< change >

< pagnum > 3 < /pagnum >

paragraph 2-7 of basic manual is amended to add the following sentence to read:

< para > Lubricate all threads with a thin coating of grease, Specification MIL-G-81322, prior to assembly.

< change >

< pagnum > 9 < /pagnum >

INSPECTION paragraph of basic manual is amended to read:

< para > INSPECTION. (See figure 4-4.) Inspect following each time steering cylinder is disassembled.

< change >

< pagnum > 9 < /pagnum >

F42650-85-C3410

INSPECTION paragraph of basic manual is amended to add subparagraph i. to read:

<p1 status = o\\>TRUNNION (32).\

Perform a fluorescent dye penetrant inspection per Specification MIL-I-6866, Type I, Method B. Pay particular attention to inside diameters and threads for corrosion and/or cracking. No defects allowed.

<rear>

</ss>

# TECHNICAL MANUAL

## HANDBOOK

### OVERHAUL INSTRUCTIONS

#### NOSE LANDING GEAR

#### STEERING CYLINDER ASSEMBLY

#### MODEL NUMBERS

402306-3	695040
695548-3	695568-1
695568-3	

THIS PUBLICATION SUPPLEMENTS 9H2-3-12-3 DATED 1 APRIL 1958. Reference to this supplement will be made on the title page of the basic manual by personnel responsible for maintaining the publication in current status.

This publication is required for official use or for administrative or operational purposes only. Distribution is limited to US Government agencies. Other requests for this document must be referred to OO-ALC/MMED, Hill AFB, Utah 84056.

Published under authority of the Secretary of the Air Force

19 JUNE 1984

1. Page 3, paragraph 2-7 of basic manual is amended to add the following sentence to read:  
Lubricate all threads with a thin coating of grease, Specification MIL-G-81322, prior to assembly.
2. Page 9, INSPECTION paragraph of basic manual is amended to read:  
INSPECTION. (See figure 4-4.) Inspect following each time steering cylinder is disassembled.
3. Page 9, INSPECTION paragraph of basic manual is amended to add subparagraph i. to read:
  - i. TRUNNION (32). Perform a fluorescent dye penetrant inspection per Specification MIL-I-6866, Type I, Method B. Pay particular attention to inside diameters and threads for corrosion and/or cracking. No defects allowed.

THE END

1/(2 blank)

F42650-85-C3410

# APPENDIX D TIME COMPLIANCE TECHNICAL ORDER: TYPE DEFINITION, TAG DESCRIPTIONS, SAMPLE INPUT, SAMPLE OUTPUT

```

<!DOCTYPE tcto "TYPE DEFINITION FOR TIME COMPLIANCE TECHNICAL ORDERS" [
<!NOTATION iges      "Initial Graphics Exchange Standard" >
<!NOTATION cgm       "Computer Graphics Metafile" >
<!NOTATION fax       "CCITT Group 4 Facsimile" >
<!ENTITY % nums      partno|tono|rdino|pubno -- NUMBERS -->
<!ENTITY % parstruc   p0|para -- Paragraph Structure Elements -->
<!ENTITY % attn       warning|caution|note -- Special Attention Elements -->
<!ENTITY % symbols    fig|sup|sub|symbol -- Symbols -->
<!ENTITY % txt        %symbols;| %nums;| #CDATA -- Text Data -->
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<!ENTITY lang2        PUBLIC "ISO 8879 LANG-2" -- Greek Alphabetic Characters -- >
<!ENTITY lang3        PUBLIC "ISO 8879 LANG-3" -- Cyrillic Alphabet -- >
<!ENTITY gen1         PUBLIC "ISO 8879 GEN-1" -- Numeric and Special Graphic Characters -- >
<!ENTITY gen2         PUBLIC "ISO 8879 GEN-2" -- Diacritical Marks as Separate Graphic Characters -- >
<!ENTITY gen3         PUBLIC "ISO 8879 GEN-3" -- Publishing Characters and Others -- >
<!ENTITY gen4         PUBLIC "ISO 8879 GEN-4" -- Proposed Box and Line Drawing Characters -- >
<!ENTITY tech1        PUBLIC "ISO 8879 TECH-1" -- Technical Characters -- >
<!ENTITY tech2        PUBLIC "ISO 8879 TECH-2" -- Greek Symbols for Technical Use -- >
<!ENTITY tech3        PUBLIC "ISO 8879 TECH-3" -- Alternate Greek Symbols for Technical Use -- >
<!ENTITY amsm         PUBLIC "ISO 8879 AMS-M" -- Mathematical Symbols, misc. -- >
<!ENTITY amsbl        PUBLIC "ISO 8879 AMS-BL" -- Mathematical Symbols, binary & large operators -- >
<!ENTITY amsr         PUBLIC "ISO 8879 AMS-R" -- Mathematical Symbols, Relations -- >
<!ENTITY amsn         PUBLIC "ISO 8879 AMS-N" -- Mathematical Symbols, Negated Relations -- >
<!ENTITY amsm         PUBLIC "ISO 8879 AMS-M" -- Mathematical Symbols, misc. -- >
<!ENTITY amsa         PUBLIC "ISO 8879 AMS-A" -- Mathematical Symbols, Arrow Relations -- >
<!ENTITY amsc         PUBLIC "ISO 8879 AMS-CO" -- Mathematical Symbols, Closing and Opening
                        Delimiters -- >
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<!USEMAP emap         "<table>" >
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<!ENTITY psetag       "<serno>" >
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<!USEMAP psmmap       "<pslist>" >
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<!SHORTREF symmap     "\ symtag >
<!USEMAP symmap       "<symsect>" >
<!ENTITY partag       "</head>" >
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F42650-85-C3410

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 <!SHORTREF stkmap "#&RE;" stktag >  
 <!USEMAP stkmap "<stklist>" >

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ATTRIBUTE	VALUE			
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security	(u c s ts)		u	
branch	(a n f mc)		f	
1 front	- o	(titlepg)		
2 body	- o	(p0+)		
3 rear	- o	(auth, sigblk+, prepblk)		

-- ELEMENT	ATTRIBUTE	MIN	VALUE	CONTENT	EXCEP- TIONS? DEFAULT --
-- Title Block Elements --					
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5 pubid		- 0	(#CDATA)		
6 pubno		- 0	(#CDATA)		
7 datacode		- 0	(#CDATA)		
8 issue		- 0	(#CDATA)		
9 rescis		- 0	(#CDATA)		
10 title		0 0	(#CDATA)		
	security		(u c s ts)		u
11 nomen		- 0	(eqptname, eqptno*, (modno modlist partno serno partlist pslist stkno stklist)*)		
	security		(u c s ts)		u
12 notice		- 0	(%txt;)		
	type		(a c r s r o b f)		NULL
13 modlist		- 0	(modno +)		
14 partlist		- 0	(partno +)		
15 pslist		- 0	(partno, serno) +		
16 stklist		- 0	(stkno +)		
17 ftnotice		- 0	(%txt;)		
18 eqptname		0 0	(#CDATA)		
19 eqptno		- 0	(#CDATA)		

-- ELEMENT		MIN	CONTENT	EXCEP-	DEFAULT --
ATTRIBUTE		VALUE		TIONS?	
-- Body Elements --					
20	p0	- o	(%attn;*, head?, paratext?, (list   para   %attn;)*, p1*)	+ (figure   table   chart   foldout)	
	security	(u   c   s   ts)		u	
	content	(na)		NULL	
21	paratext	o o	(%txt,   list) +		
22	p1	- o	(%attn;*, head?, paratext?, (list   para   %attn;)*, p2*)		
	security	(u   c   s   ts)		u	
	content	(na)		NULL	
23	p2	- o	(%attn;*, head?, paratext?, (list   para   %attn;)*, p3*)		
	security	(u   c   s   ts)		u	
	content	(na)		NULL	
24	p3	- o	(%attn;*, head?, paratext?, (list   para   %attn;)*, p4*)		
	security	(u   c   s   ts)		u	
	content	(na)		NULL	
25	p4	- o	(%attn;*, head?, paratext?, (list   para   %attn;)*)		
	security	(u   c   s   ts)		u	
	content	(na)		NULL	

-- ELEMENT		MIN	CONTENT	EXCEP-	DEFAULT --
ATTRIBUTE		VALUE		TIONS?	
-- Warning   Caution   Note Elements --					
26	warning	- -	(title?, (figure   paratext   list) +)		
	security		(u   c   s   ts)		u
27	caution	- -	(figure   paratext   list) +		
	security		(u   c   s   ts)		u
28	note	- -	(figure   paratext   list) +		
	security		(u   c   s   ts)		u

-- ELEMENT	ATTRIBUTE	MIN VALUE	CONTENT	EXCEP- TIONS?	DEFAULT --
-- Figure Elements --					
29 figure		- -	(NDATA, (legend? & title))	- (table   chart   figure   foldout)	
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	depth	NUMBER			REQUIRED
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	float	(y   n)			n
	security	(u   c   s   ts)			u
	data	NOTATION (iges   cgm   fax)			iges
	location	CONREF			REQUIRED
	graphic	(y   n)			y
	rotation	(0   90   180   270)			0
	change	NUMBER			0
30 foldout		- -	(NDATA, (legend? & title))	- (table   chart   figure   foldout)	
	status	(i   d   n   o   r)			n
	security	(u   c   s   ts)			u
	data	NOTATION (iges   cgm   fax)			iges
	location	CONREF			REQUIRED
	graphic	(y   n)			y
	rotation	(0   90   180   270)			0
	change	NUMBER			0
31 legend		- -	(symsect   para   list) +		
32 symsect		- -	(symr +)		
33 symr		- o	(sym, def)		
34 sym		o o	(#CDATA)		
35 def		- o	(%txt;)		

-- ELEMENT		MIN	CONTENT	EXCEP-
ATTRIBUTE	VALUE			TIONS? DEFAULT --
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col	NUMBER		REQUIRED	
sec	(u   c   s   ts)		u	
status	(i   d   n   o   r)		n	
type	CDATA		REQUIRED	
content	(f   a)		f	
37 thead	- -	(r +)		
38 tbody	- -	(r +)		
39 r	- o	(e +)		
40 e	- o	(%txt;)		
41 chart	- -	(title?, chthd?, chtbdy)	- (table   chart   figure   foldout)	
col	NUMBER		REQUIRED	
security	(u   c   s   ts)		u	
status	(i   d   n   o   r)		n	
type	CDATA		REQUIRED	
content	(f   a)		f	
42 chthd	- -	(r +)		
43 chtbdy	- -	(r) +		

-- ELEMENT		MIN	CONTENT	EXCEP-
ATTRIBUTE	VALUE			TIONS? DEFAULT --
-- Rear Elements --				
44 auth	- o	(#CDATA)		
45 sigblk	- o	(sighd, byline)		
46 sighd	o o	(#CDATA)		
47 byline	- o	(#CDATA)		
48 prepblk	- o	(#CDATA)		

- - ELEMENT		MIN	CONTENT	EXCEP-
ATTRIBUTE	VALUE			TIONS? DEFAULT - -
-- Basic Document Elements --				
49 <b>emph</b>	- -	(%txt;)		
type	(q   i   b   u   s   x)			q
50 <b>flag</b>	- o	NONE		
type	CDATA			REQUIRED
51 <b>ftnote</b>	- -	(%txt;)	- ftnote	
box	(y   n)			n
over	(y   n)			n
52 <b>head</b>	o -	(#CDATA)		
53 <b>item</b>	- o	(#CDATA)		
54 <b>list</b>	- -	(item +)		
type	(n   b)			b
55 <b>modno</b>	- o	(#CDATA)		
56 <b>para</b>	- o	(head?, (paratext   %attn;) +)		
security	(u   c   s   ts)			u
57 <b>partno</b>	- o	(#CDATA)		
58 <b>rdino</b>	- o	(#CDATA)		
59 <b>serno</b>	- o	(#CDATA)		
60 <b>stkno</b>	- o	(#CDATA)		
61 <b>sub</b>	- o	NONE		
type	CDATA			REQUIRED
62 <b>sup</b>	- o	NONE		
type	CDATA			REQUIRED
63 <b>symbol</b>	- o	NDATA		
width	NUMBER			REQUIRED
depth	NUMBER			REQUIRED
data	NOTATION (iges   cgm   fax)			iges
location	CONREF			REQUIRED
graphic	(y   n)			y
rotation	{0   90   180   270}			0
64 <b>tono</b>	- -	(#CDATA)		

&gt; | &gt;

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**Descriptions of Tags for  
TIME COMPLIANCE TECHNICAL ORDER (TCTO)**

TAG	ELEMENT	DESCRIPTION
<b>&lt;tcto security = x branch = x&gt;</b>	Begin TCTO document	<p>Begins a Time Compliance Technical Order document and sets the heading for subsequent pages.</p> <p style="text-align: center;"><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = "U". Specifies the classification of the TCTO. If the classification of the overall TCTO is unclassified (the default), the security attribute may be omitted for other calls within the document.</p> <p><b>Branch:</b> "F" (Air Force), "A" (Army), "N" (Navy), or "MC" (Marine Corps). Default = "F". Specifies the military branch of the procuring activity (branch primarily responsible for the document).</p>
<b>front</b>	Begin front	Begins the front matter of the TCTO.
<b>&lt;titlepg&gt;</b>	Begin the title block page	Begins the title block page.
<b>&lt;pubid&gt;</b>	Publication identification name	Centers the operator-entered publication name on the title block page. If the tag is entered without text, the leading will be set without text.
<b>&lt;pubno&gt;</b>	Publication number	Sets the publication number entry on the title block page. All prefixes (e.g., T.O.) must be specified.
<b>&lt;datacode&gt;</b>	Data code number	Sets the words "DATA CODE:" followed by the operator-entered data code number on the title block page.
<b>&lt;issue&gt;</b>	Issue date	Sets the operator-entered issue date on the title block page.
<b>&lt;rescis&gt;</b>	Rescission date	Sets the words "Rescission date:" followed by the operator-entered rescission date on the title block page.
<b>&lt;title security = x&gt;</b>	Title	<p>Allows the proper leading for the preprinted "SAFETY TIME COMPLIANCE TECHNICAL ORDER" title. Centers the operator-entered TCTO title.</p> <p style="text-align: center;"><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification. If no security level has been previously specified, it defaults to "U". Specifies the security classification of the title.</p>
<b>&lt;nomen security = x&gt;</b>	Equipment nomenclature.	<p>Centers the operator-entered equipment nomenclature on the cover/title page.</p> <p style="text-align: center;"><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification. If no security level has been previously specified, it defaults to "U". Specifies the security classification of the equipment nomenclature.</p>

## F42650-85-C3410

TAG	ELEMENT	DESCRIPTION
<eqptno>	Equipment number	Centers the operator-entered equipment number on the cover/title page. If, after the equipment number, a list of model, part, serial, or stock numbers is desired, it must begin with the call to the appropriate list (described below) or table.
<modlist>	Model numbers list	Sets the operator-entered list of model numbers on the cover/title page in two columns beneath the centered heading "MODEL NUMBERS". Each model number must be entered on a separate line.
<partlist>	Part numbers list	Sets the operator-entered list of part numbers on the cover/title page in two columns beneath the centered heading "PART NUMBERS". Each part number must be entered on a separate line.
<pslist>	Part/serial numbers list	Sets the operator-entered list of part and serial numbers on the cover/title page. The numbers are listed in a two-column table with the heading "PART NUMBER" on the left and "SERIAL NUMBER" on the right. Each part number must be followed by a backslash and the serial number; each part/serial number must be entered on a separate line.
<stklist>	Stock number list	Sets the operator-entered list of stock numbers on the cover/title page in two columns beneath the centered heading "STOCK NUMBERS". Each stock number must be entered on a separate line.
<modno> <partno> <serno> <stkno>	Model number Part number Serial number Stock number	These tags center the operator-entered number on the cover/title page.

TAG	ELEMENT	DESCRIPTION
<notice type = x>	Notices	<p>Sets the word "NOTE" followed by the appropriate text for notices on the title block page.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Type:</b> "A", (authority), "B" (branch), "O" (option), "F" (formalize), "C" (commanders), "R" (reference), or "S" (supplement). Default = NULL.</p> <p>The <b>commanders notice</b> sets the standard text "Commanders are responsible for bringing this technical order to the attention of all Air Force personnel cleared for operation of affected system."</p> <p>The <b>option notice</b> sets the standard text "This technical order formalizes interim WWW action XXX (Data Code YYY) dated ZZZ. No additional work is required by this supplement. REFERENCE TO THIS SUPPLEMENT WILL BE MADE ON PAGE 1 IN THE BASIC PUBLICATION.", where WWW = operator-entered action type (e.g. URGENT), XXX the T.O. number, YYY the data code and ZZZ the date.</p> <p>The <b>formalize notice</b> set the standard text "This technical order formalizes interim WWW action XXX (Data Code YYY) dated ZZZ. Remove from active files." where WWW = operator-entered action type (e.g. URGENT), XXX the T.O. number, YYY the data code and ZZZ the date.</p> <p>The <b>authority notice</b> "A" sets and centers the standard text "Published under authority of the Secretary of the Air Force."</p> <p>The <b>branch notice</b> "B" is an unknown operator-entered notice which is centered at the bottom of the title block page.</p>
<ftnotice>	Foot notice	<p>Sets the standard text "This technical order is required for official use or for administrative or operational purposes only. Distribution is limited to US Government agencies. Other requests for this document must be referred to xxx", where xxx is the name of the distributor. The tag is followed by the operator-entered ALC name. Text is placed at the foot of the first page of the TCTO.</p>
<body>	Begins body	<p>Ends the title block and begins the body of the TCTO. Defines the head and foot of the body.</p>
<p0 <p1 <p2 <p3 <p4 security = x content = x>	Primary paragraph 1st subordinate paragraph 2nd subordinate paragraph 3rd subordinate paragraph 4th subordinate paragraph	<p>Automatically numbers, indents when appropriate, and sets the operator-entered paragraph. The &lt;p0&gt; tag and some &lt;p1&gt; and &lt;p2&gt; tags also set standard paragraph heads (see "Note" following these descriptions). The tag specifies the level of the paragraph.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has previously been specified, it defaults to "U". Specifies the classification of the paragraph.</p> <p><b>For paragraphs with automatic headings only:</b></p> <p><b>Content:</b> "NA." If the operator uses this attribute with a &lt;p0&gt;, &lt;p1&gt; or &lt;p2&gt; tag that sets a standard paragraph head, the words "Not applicable" will follow the standard heading text.</p>

TAG	ELEMENT	DESCRIPTION
<b>&lt;para security = x &gt;</b>	Paragraph	<p>Sets the operator-entered paragraph text with no number and is indented accordingly based on the paragraph level in which the additional paragraph is set.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has previously been specified, it defaults to "U". Specifies the classification of the paragraph.</p>
<b>&lt;warning security = x &gt;</b>	Begin warning	<p>Sets the warning head in a double box above the first line of text to follow. The operator may follow the warning head with a paragraph or a list.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the warning.</p>
<b>&lt;/warning&gt;</b>	End warning	Ends warning.
<b>&lt;caution security = x &gt;</b>	Begin caution	<p>Sets the caution heading with a single box above the first line of text to follow. The operator may follow the caution head with a paragraph or a list.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the caution.</p>
<b>&lt;/caution&gt;</b>	End caution	Ends caution.
<b>&lt;note security = x &gt;</b>	Begin note	<p>Sets the note head in bold upper-case above the first line of text to follow. The operator may follow the note head with a paragraph or a list.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the note.</p>
<b>&lt;/note&gt;</b>	End note	Ends note.
<b>&lt;rear&gt;</b>	Begins rear	Ends the body and begins the TCTO rear matter.
<b>&lt;auth&gt;</b>	Authorization	Sets the standard text "BY ORDER OF THE SECRETARY OF THE AIR FORCE:".

NOTE - Please see descriptions under MIL-M-38784A, Appendix A, for descriptions of tags pertaining to IPB's, figures, tables, charts, and foldouts.

TAG	ELEMENT	DESCRIPTION
<sigblk>	Signature	<p>Sets the operator-entered Chief of Staff name in the first signature block, followed by the automatically generated title "", GENERAL, USAF CHIEF OF STAFF", including punctuation.</p> <p>Sets the operator-entered Commander name in the second signature block, followed by the automatically generated title "", General, USAF Commander, AFLC", including punctuation.</p>
<byline>	Begin name and title block	Begins the name and title of the signature block. Each line must be entered on a separate text editor line.
<prepbk>	Preparation notice	Sets the standard text "Prepared by" followed by the operator-entered authority name.
</tcto>	End TCTO	Ends the Time Compliance Technical Order document.

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**NOTE**

The following is an outline of the headings automatically set when format calls:

<p0> for primary paragraphs 1-8

<p1> (following primary paragraph 5, 7, and 8 only)

<p2> (following first subordinate paragraph after paragraph 5 only)

are entered in the text file. Backslashes are not required for tags which automatically set headings.

1. APPLICATION.
2. PURPOSE.
3. WHEN TO BE ACCOMPLISHED.
4. BY WHOM TO BE ACCOMPLISHED.
5. WHAT IS REQUIRED.
  - a. Supply Information and Requirements.
    - (1) Kits/Parts/Materials Required.
    - (2) Action Required on Items in Stock.
    - (3) Kits/Parts/Materials Required to Modify Items in Stock.
    - (4) Disposition of Removed and Replaced Parts/Materials.
    - (5) Drawings and Instructions Required.
    - (6) Size, Weight, and Cost of Kits/Parts/Materials.
    - (7) Disposition of Kits/Parts/Materials.
  - b. Personnel Information and Requirements.
  - c. Special Tools, Fixtures, Test Equipment, and Software Required.
6. HOW WORK IS ACCOMPLISHED.
7. SUPPLEMENTAL INFORMATION.
  - a. Fuel System Defuel/Purge.
  - b. Operational Checkout Requirements.
  - c. Weight and Balance Information.
  - d. Technical Manuals Affected.
8. RECORDS.
  - a. Action Required on Maintenance Records.
  - b. Action Required on Supply Records.
  - c. Retrofit Change or Inspection Identification Markings.

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<tcto>

<titlepg>

<pubno> T.O. PRUF-03-07-TCTO-V4

<datacode> 999-999-9

<issue> 23 November 1974

<rescis> 29 November 1974

<pubid> DEPARTMENT OF THE AIRFORCE  
TECHNICAL ORDER

<title> INSPECTION OF NOSE LANDING GEAR TORQUE  
LINKS QUICK-RELEASE PIN - OA-37B AIRCRAFT

<ftnotice> WR-ALC/MMEDT, Robins AFB, Georgia.

<body>

<p0>

<p1> This technical order is applicable to all OA-37B aircraft nose landing gear.

<table type = xxx col = 2 >

<thead>

<r> MODEL\SERIAL NO.

</thead>

<tbody>

<r> OA-37B\All

</tbody>

</table>

<p1> Kits are not required by this TCTO.

<p1> Kit proof testing, in accordance with T.O. 00-5-15, was accomplished at 23TASS, Davis-Monthan AFB, Arizona, on aircraft OA-37B, serial No. 410, 23 February 1984.

<p0>

<para> The purpose of this TCTO is to inspect and replace all OA-37B aircraft nose landing gear torque links quick-release pins with pin, part No. MS17987C413, NSN 5340-00-119-3973.

<p0>

<para> Not later than 90 days after receipt of this TCTO and parts. Failure to accomplish this TCTO by the preceding specified number of days shall automatically restrict operations or shall be justification for withdrawing affected system/equipment from service until compliance is accomplished.

<p0>

<para> Organizational/intermediate level maintenance.

<p0>

<p1>

<p2>

<note> AF activities will ensure that requisitioning of TCTO kits/parts is effected in an expeditious manner to ensure accomplishment of this modification within the designated time period. </note>

<para> The following parts/materials required to comply with this TCTO are not furnished in a kit and will be obtained through the appropriate supply source.

<table type = xxx col = 5>

<thead>

<r> QTY\STOCK NO.\PART NO.\NOMENCLATURE\SOURCE

</thead>

<tbody>

<r> 1\5340-00-119-3973\MS17987C413\Pin, Quick-Release\AF Supply

</tbody>

</table>

<p2>

<para> Spares and WRM will be modified in accordance with TCTO 4S2-27-504.

<p2>

<para> In accordance with TCTO 4S2-27-504.

<p2>

<para> Disposition of removed and replaced parts is to take immediate disposal action through local defense property disposal organization.

<p2 content = na>

<p2 content = na>

<p2 content = na>

<p1>

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<r> WORKPHASES\AFSC SKILLS\MAN-HOURS REQUIRED

</thead>

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<r> Installation\423X4\0.5

<r> \TOTAL MAN-HOURS\0.5

</tbody>

</table>

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<p0>

<p1> Inspect each OA-37B aircraft nose landing gear torque links quick-release pin.

<p1> If the installed quick-release pin is not part No. MS17987C413, or cannot be identified, then replace the pin with part No. MS17987C413, NSN 5340-00-119-3973, is to be obtained through normal supply channels.

<p2> Part No. MS17987C413, NSN 5340-00-119-3973, is to be obtained through normal supply channels.

<p1> Part No. MS17987C413 will be received with an ATTACHING LINK OR RING attached to the HANDLE RING. This secondary LINK OR RING is to be removed and disposed of prior to installing the pin in the torque links of the nose landing gear.

<p1> Ensure that the nose landing gear torque links quick release pin cannot be removed from the torque links when pulled on by its HANDLE RING.

<p1 content = na>

<p0>

<p1>

<para> Fuel system defueling/purging of aircraft shall not be accomplished prior to accomplishing this TCTO.

<p1 content = na>

<p1 content = na>

<p1>

<table type = xxx col = 2>

<thead>

<r>T.O. NO.\DATE OF BASIC ISSUE

</thead>

<tbody>

<r>1A37B-4\1 January 1976

</tbody>

</table>

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<p1>

<para>AFTO Form 349 will be submitted on each aircraft affected. Report TCTO compliance in accordance with T.O. 00-20-2-2, table 2-3, rule 1.

<p1 content = na>

<p1 content = na>

<rear>

<auth>

<sigblk>CHARLES A. GABRIEL

<sigblk>JAMES P. MULLINS

<prepbk>00-ALC (MMIRCB/458-5732)

</tcto>

DEPARTMENT OF THE AIR FORCE T.O. PRUF-03-07-TCTO-V4  
TECHNICAL ORDER DATA CODE: 999-999-9  
23 November 1974

Rescission date: 29 November 1974

INSPECTION OF NOSE LANDING GEAR TORQUE  
LINKS QUICK-RELEASE PIN - OA-37B AIRCRAFT

1. APPLICATION.

- a. This technical order is applicable to all OA-37B aircraft nose landing gear.

MODEL  
OA-37B

SERIAL NO.  
All

- b. Kits are not required by this TCTO.

c. Kit proof testing, in accordance with T.O. 00-5-15, was accomplished at 23TASS, Davis-Monthan AFB, Arizona, on aircraft OA-37B, serial No. 410, 23 February 1984.

2. PURPOSE.

The purpose of this TCTO is to inspect and replace all OA-37B aircraft nose landing gear torque links quick-release pins with pin, part No. MS17987C413, NSN 5340-00-119-3973.

3. WHEN TO BE ACCOMPLISHED.

Not later than 90 days after receipt of this TCTO and parts. Failure to accomplish this TCTO by the preceding specified number of days shall automatically restrict operations or shall be justification for withdrawing affected system/equipment from service until compliance is accomplished.

4. BY WHOM TO BE ACCOMPLISHED.

Organizational/intermediate level maintenance.

This technical order is required for official use or for administrative or operational purposes only. Distribution is limited to US Government agencies. Other requests for this document must be referred to WR-ALC/MMEDT, Robins AFB, Georgia.

## T.O. PRUF-03-07-TCTO-V4

## 5. WHAT IS REQUIRED.

## a. Supply Information and Requirements.

## NOTE

AF activities will ensure that requisitioning of TCTO kits/parts is effected in an expeditious manner to ensure accomplishment of this modification within the designated time period.

## (1) Kits/Parts/Materials Required.

The following parts/materials required to comply with this TCTO are not furnished in a kit and will be obtained through the appropriate supply source.

QTY	STOCK NO.	PART NO.	NOMENCLATURE	SOURCE
1	5340-00-119-3973	MS17987C413	Pin, Quick-Release	AF Supply

## (2) Action Required on Items in Stock.

Spares and WRM will be modified in accordance with TCTO 4S2-27-504.

## (3) Kits/Parts/Materials Required to Modify Items in Stock.

In accordance with TCTO 4S2-27-504.

## (4) Disposition of Removed and Replaced Parts/Materials.

Disposition of removed and replaced parts is to take immediate disposal action through local defense property disposal organization.

## (5) Drawings and Instructions Required. Not Applicable.

## (6) Size, Weight, and Cost of Kits/Parts/Materials. Not Applicable.

## (7) Disposition of Kits/Parts/Materials. Not Applicable.

## b. Personnel Information and Requirements.

WORKPHASES	AFSC SKILLS	MAN-HOURS REQUIRED
Installation	423X4	0.5
	TOTAL MAN-HOURS	0.5

## c. Special Tools, Fixtures, Test Equipment, and Software Required. Not Applicable.

## 6. HOW WORK IS ACCOMPLISHED.

## a. Inspect each OA-37B aircraft nose landing gear torque links quick-release pin.

b. If the installed quick-release pin is not part No. MS17987C413, or cannot be identified, then replace the pin with part No. MS17987C413, NSN 5340-00-119-3973, is to be obtained through normal supply channels.

(1) Part No. MS17987C413, NSN 5340-00-119-3973, is to be obtained through normal supply channels.

c. Part No. MS17987C413 will be received with an ATTACHING LINK OR RING attached to the HANDLE RING. This secondary LINK OR RING is to be removed and disposed of prior to installing the pin in the torque links of the nose landing gear.

d. Ensure that the nose landing gear torque links quick release pin cannot be removed from the torque links when pulled on by its HANDLE RING.

e. Reidentification of assembly. Not Applicable.

7. SUPPLEMENTAL INFORMATION.

a. Fuel System Defuel/Purge.

Fuel system defueling/purging of aircraft shall not be accomplished prior to accomplishing this TCTO.

b. Operational Checkout Requirements. Not Applicable.

c. Weight and Balance Information. Not Applicable.

d. Technical Manuals Affected.

T.O. NO.  
1A37B-4

DATE OF BASIC ISSUE  
1 January 1976

8. RECORDS.

a. Action Required on Maintenance Records.

AFTO Form 349 will be submitted on each aircraft affected. Report TCTO compliance in accordance with T.O. 00-20-2-2, table 2-3, rule 1.

b. Action Required on Supply Records. Not Applicable.

c. Retrofit Change or Inspection Identification Markings. Not Applicable.

BY ORDER OF THE SECRETARY OF THE AIR FORCE:

CHARLES A. GABRIEL, GENERAL, USAF  
CHIEF OF STAFF

JAMES P. MULLINS, General, USAF  
Commander, AFLC

Prepared by 00-ALC (MMIRCB/458-5732)

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# APPENDIX E TIME COMPLIANCE TECHNICAL ORDER SUPPLEMENT: TYPE DEFINITION, TAG DESCRIPTIONS, SAMPLE INPUT, SAMPLE OUTPUT

```

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<!NOTATION fax           "CCITT Group 4 Facsimile" >
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<!ENTITY gen3            PUBLIC "ISO 8879 GEN-3" -- Publishing Characters and Others -- >
<!ENTITY gen4            PUBLIC "ISO 8879 GEN-4" -- Proposed Box and Line Drawing Characters -- >
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<!ENTITY amsr            PUBLIC "ISO 8879 AMS-R" -- Mathematical Symbols, Relations -- >
<!ENTITY amsn            PUBLIC "ISO 8879 AMS-N" -- Mathematical Symbols, Negated Relations -- >
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	branch	(a   n   f   mc)		f
1	front	- o	(titlepg)	
2	body	- o	(change+)	
	security	(u   c   s   ts)		u
3	rear	- o	(auth, sigblk+ , prepbk)	

AD-A168 137

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TECHNICAL ORDER SYSTEM (ATOS)(U) DATALOGICS INC CHICAGO  
IL 23 MAY 86 F42650-85-C-3410

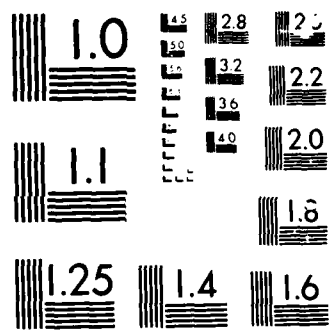
3/3

UNCLASSIFIED

F/G 5/2

NL





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15	partlist	- 0	(partno +)	
16	pslist	- 0	(partno, serno) +	
17	stklist	- 0	(stkno +)	
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20	ftnotice	- 0	(%txt.)	

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27	p3	- o	(%attn;* , head?, paratext?, (list   para   %attn;)* , p4*)		
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35 symsect		- -	(symr +)		
36 symr		- o	(sym. def)		
37 sym		o o	(#CDATA)		
38 def		- o	(%txt;)		

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	type		CDATA		REQUIRED
	content		(f   a)		f
40 thead		- -	(r +)		
41 tbody		- -	(r +)		
42 r		- o	(e +)		
43 e		- o	(%txt:)		
44 chart		- -	(title?, chthd?, chtbdy)		- (table   chart   figure   foldout)
	col		NUMBER		REQUIRED
	security		(u   c   s   ts)		u
	status		(i   d   n   o   r)		n
	type		CDATA		REQUIRED
	content		(f   a)		f
45 chthd		- -	(r +)		
46 chtbdy		- -	(r +)		

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50	byline	- o	(#CDATA)	
51	prepbk	- o	(#CDATA)	

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67 <b>tono</b>		- -	(#CDATA)			

&gt; ] &gt;

F42650-85-C3410

**Descriptions of Tags for  
TIME COMPLIANCE TECHNICAL ORDER SUPPLEMENT (TCTO SUP)**

TAG	ELEMENT	DESCRIPTION
<b>&lt;tctosup security = branch = x &gt;</b>	Begin TCTO supplement document	<p>Begins a Time Compliance Technical Order Supplement document and sets the heading for subsequent pages.</p> <p style="text-align: center;"><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = "U". Specifies the classification of the TCTO sup. If the classification of the overall TCTO sup is unclassified (the default), the security attribute may be omitted for other calls within the document.</p> <p><b>Branch:</b> "F" (Air Force), "A" (Army), "N" (Navy), or "MC" (Marine Corps). Default = "F". Specifies the military branch of the procuring activity (branch primarily responsible for the document).</p>
<b>&lt;front &gt;</b>	Begin front	Begins the front matter of the TCTO Supplement.
<b>&lt;titlepg &gt;</b>	Begin the title block page	Begins the title block page.
<b>&lt;pubid &gt;</b>	Publication identification name	Specifies the operator-entered publication name on the title block page. If the tag is entered without text, the leading will be set without text.
<b>&lt;pubno &gt;</b>	Publication number	Sets the publication number entry on the title block page. All prefixes (e.g., T.O.) must be specified.
<b>&lt;datacode &gt;</b>	Data code number	Sets the words "DATA CODE:" followed by the operator-entered data code number on the title block page.
<b>&lt;issue &gt;</b>	Issue date	Sets the operator-entered issue date on the title block page.
<b>&lt;sbto &gt;</b>	Optional text	Sets the words "** SUPPLEMENT TO BASIC TECHNICAL ORDER *" on the title block page.
<b>&lt;title security = x &gt;</b>	Title	<p>Centers and sets the words "DEPARTMENT OF THE AIR FORCE TECHNICAL ORDER" on the title block page, followed by the operator-entered TCTO supplement title.</p> <p style="text-align: center;"><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the title.</p>

TAG	ELEMENT	DESCRIPTION
< notice type = x >	Notices	<p>Sets the word "NOTE" followed by the appropriate text for notices on the title block page.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Type:</b> "F" (formalize), "SR" (supplement/replace), "A" (authority), "B" (branch), "C" (commanders), "S" (supplement), or "R" (reference). Default = NULL.</p> <p>The <b>formalize notice</b> sets the standard text "This technical order formalizes interim WWW action XXX (Data Code YYY) dated ZZZ. Remove from active files.", where WWW is the operator-entered action type (e.g. URGENT), XXX the T.O. number, YYY the data code, and ZZZ the date.</p> <p>The <b>supplement/replace notice</b> sets the standard text "This technical order replaces XXX (Data Code YYY) dated ZZZ in its entirety.", where XXX is the operator-entered T.O. number, YYY the data code, and ZZZ the date.</p> <p>The <b>supplement notice</b> sets the standard text "This technical order supplements XXX (Data Code YYY) dated ZZZ to make corrections as indicated herein. No additional work is required by this supplement. A SUITABLE REFERENCE TO THIS SUPPLEMENT WILL BE MADE ON PAGE 1 AND OPPOSITE EACH AFFECTED PARAGRAPH OR FIGURE IN THE BASIC PUBLICATION.", where XXX is the operator-entered T.O. number, YYY the data code, and ZZZ the date.</p> <p>The <b>authority notice</b> sets the standard text "Published under authority of the Secretary of the Air Force".</p> <p>The <b>branch notice</b> is an unknown, operator-entered notice which is centered on the title block page.</p> <p>The <b>recission notice</b> sets the standard text "This supplement is issued for the purpose of extending the effectivity period of XXX (Data Code YYY) dated ZZZ. No additional work is required by this supplement. REFERENCE TO THIS SUPPLEMENT WILL BE MADE ON PAGE 1 OF THE BASIC PUBLICATION.", where XXX is the operator-entered T.O. number, YYY the data code and ZZZ the date.</p> <p>The <b>option notice</b> sets the standard text "This technical order formalizes interim WWW action XXX (Data Code YYY) dated ZZZ. No additional work is required by this supplement. REFERENCE TO THIS SUPPLEMENT WILL BE MADE ON PAGE 1 IN THE BASIC PUBLICATION.", where WWW is the operator-entered action type, XXX the T.O. number, YYY the data code, and ZZZ the date.</p> <p>The <b>commanders notice</b> sets the standard text "Commanders are responsible for bringing this technical order to the attention of all Air Force personnel cleared for operation of affected system."</p>

TAG	ELEMENT	DESCRIPTION
<b>&lt;ftnotice&gt;</b>	Foot notice	Sets the standard text "This publication is required for official use or for administrative or operational purposes only. Distribution is limited to US Government agencies. Other requests for this document must be referred to xxx", where xxx is the name of the distributor. The tag is followed by the operator-entered ALC name. Text is placed at the foot of the first page of the TCTO supplement.
<b>&lt;body&gt;</b>	Begins body	Ends the title block and begins the body of the TCTO supplement.
<b>&lt;change security = x&gt;</b>	Change paragraph	<p>Begins a change paragraph within the body of the document. Sets a sequential arabic numeral followed by the operator-entered paragraph describing the change.</p> <p><b>NOTE:</b> The &lt;change&gt; tag may be followed by a paragraph title. This title is ended, and the actual text of the paragraph begun, with a backslash character. If there is no title for the paragraph, the tag should be followed immediately with a backslash.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification, if no security level has been previously specified, it defaults to "U". Specifies the classification of the change paragraph.</p>
<b>&lt;para security = x&gt;</b>	Paragraph	<p>Sets the operator-entered paragraph text with no number and the appropriate indent.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the classification of the paragraph.</p>
<b>&lt;warning security = x&gt;</b>	Begin warning	<p>Sets the warning head in a double box above the first line of text to follow. The operator may follow the warning head with a paragraph or a list.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the warning.</p>
<b>&lt;/warning&gt;</b>	End warning	Ends warning.
<b>&lt;caution security = x&gt;</b>	Begin caution	<p>Sets the caution heading with a single box above the first line of text to follow. The operator may follow the caution head with a paragraph or a list.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification; if no security level has been previously specified, it defaults to "U". Specifies the security classification of the caution.</p>
<b>&lt;/caution&gt;</b>	End caution	Ends caution.

TAG	ELEMENT	DESCRIPTION
<b>&lt; note security = x &gt;</b>	Begin note	<p>Sets the note head in bold upper-case above the first line of text to follow. The operator may follow the note head with a paragraph or a list.</p> <p><b>Optional Attribute(s)</b></p> <p><b>Security:</b> "U" (unclassified), "C" (confidential), "S" (secret), or "TS" (top secret). Default = previous security classification, if no security level has been previously specified, it defaults to "U". Specifies the security classification of the note.</p>
<b>&lt;/note &gt;</b>	End note	Ends note.
<b>&lt; rear &gt;</b>	Begin rear	Ends the body of the TCTO supplement and begins the TCTO supplement rear matter.
<b>&lt; auth &gt;</b>	Authorization	Sets the standard text: "BY ORDER OF THE SECRETARY OF THE AIR FORCE:"
<b>&lt; sigblk &gt;</b>	Signature	<p>Sets the operator-entered Chief of Staff name in the first signature block, followed by the automatically generated title "GENERAL, USAF CHIEF OF STAFF", including punctuation.</p> <p>Sets the operator-entered Commander name in the second signature block, followed by the automatically generated title "General, USAF Commander, AFLC", including punctuation.</p>
<b>&lt; byline &gt;</b>	Begin name and title block	Begins the name and title of the signature block. Each line must be entered on a separate text editor line.
<b>&lt; prepblk &gt;</b>	Preparation notice	Sets the standard text "Prepared by" followed by the operator-entered authority name.
<b>&lt;/tctosup &gt;</b>	End TCTO sup	Ends the Time Compliance Technical Order supplement document.

NOTE - Please see descriptions under MIL-M-38784A, Appendix A, for descriptions of tags pertaining to IPB's, figures, tables, charts, and foldouts.

< tctosup >

< titlepg >

< pubno > T.O. PRUF-03-08-TCTO-V4C

< datacode > 0164351

< issue > 25 September 1976

< sbto >

< pubid > DEPARTMENT OF THE AIR FORCE  
TECHNICAL ORDER

< title > MODIFICATION TO RUDDER PEDAL ADJUST RATCHETS  
A/F37A-T58 COCKPIT PROCEDURE TRAINERS  
(CPT) C-130E

< notice > This publication supplements T.O. 43D3-5-13-520 (Data Code 4311131) dated 30 June 1985 to make corrections as indicated herein. No additional work is required by this supplement. A SUITABLE REFERENCE TO THIS SUPPLEMENT WILL BE MADE ON PAGE 1 AND OPPOSITE EACH AFFECTED PARAGRAPH OR FIGURE IN THE BASIC PUBLICAITON.

< ftnotice > OO-ALC/MMED, Hill AFB, Utah 84056.

< body >

< change > Recission date of basic technical order is amended to read March 1986.

< change >

< pagnum > 3 < /pagnum >  
paragraph 6.d. of basic technical order is amended to read:

< para > Using a 0.272 inch drill bit or drill bit letter I, drill existing 1/8 inch diameter hole to a 0.272 inch hole. Drill a depth of 1-1/8 inches (see figure 1).

< rear >

< auth >

< sigblk > CHARLES A. GABRIEL

< sigblk > EARL T. O'LOUGHLIN

< prepbk > OO-ALC (MMFR/458-4059)

< /tctosup >

F42650-85-C3410

DEPARTMENT OF THE AIR FORCE  
TECHNICAL ORDERT.O. PRUF-03-08-TCTO-V4C  
DATA CODE: 0164351  
25 September 1976

## • SUPPLEMENT TO BASIC TECHNICAL ORDER •

MODIFICATION TO RUDDER PEDAL ADJUST RATCHETS  
A/F37A-T58 COCKPIT PROCEDURE TRAINERS  
(CPT) C-130E

**NOTE** This publication supplements T.O. 43D3-5-13-520 (Data Code 4311131) dated 30 June 1985 to make corrections as indicated herein. No additional work is required by this supplement. A SUITABLE REFERENCE TO THIS SUPPLEMENT WILL BE MADE ON PAGE 1 AND OPPOSITE EACH AFFECTED PARAGRAPH OR FIGURE IN THE BASIC PUBLICAITON.

1. Recission date of basic technical order is amended to read March 1986.
2. Page 3, paragraph 6.d. of basic technical order is amended to read:  
Using a 0.272 inch drill bit or drill bit letter I, drill existing 1/8 inch diameter hole to a 0.272 inch hole. Drill a depth of 1-1/8 inches (see figure 1).

BY ORDER OF THE SECRETARY OF THE AIR FORCE:

CHARLES A. GABRIEL, GENERAL, USAF  
CHIEF OF STAFFEARL T. O'LOUGHLIN, General, USAF  
Commander, AFLC

Prepared by 00-ALC (MMFR/458-4059)

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DT/C

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